

UNIVERSITY OF ARKANSAS BULLETIN

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Number 4

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# Annual Catalog

## 1918 - 1919



### ANNOUNCEMENT

1919 - 1920

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# UNIVERSITY CALENDAR

1919-1920

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## 1919

September 22 - 23, Monday-Tuesday	Special, make-up, and entrance examinations.
September 24-27, Wednesday-Saturday	Registration for fall term.
September 29, Monday	Fall term begins, 8:00 a. m.
November 27, Thursday	Thanksgiving holiday.
December 15-19, Monday-Friday	Registration for winter term.
December 19, Friday	Fall term ends, 5:00 p. m.
December 29, Monday	Winter term begins, 8:00 a. m.

## 1920

March 15-20, Monday-Saturday	Registration for spring term.
March 20, Saturday	Winter term ends, 5:00 p. m.
March 22, Monday	Spring term begins, 8:00 a. m.
April 1, Thursday	Easter vacation begins, 5 p. m.
April 6, Tuesday	Easter vacation ends, 8:00 a. m.
June 12, Saturday	Spring term ends, 5:00 p. m.
June 13, Sunday	Baccalaureate sermon.
June 15, Tuesday	Commencement day.
June 16-19, Wednesday-Saturday	Registration for summer term.
June 21, Monday	Summer term begins, 8:00 a. m.

## BOARD OF TRUSTEES

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*The Governor of Arkansas*-----*Ex-Officio*

CHARLES H. BROUGH, Little Rock

*The State Superintendent of Public Instruction*-----*Ex-Officio*

JOHN L. BOND, Little Rock

### *Expiration of Term*

JAMES K. BROWNING, Piggott-----1921

Z. LYTTON REAGAN, Rogers-----1921

A. B. BANKS, Fordyce-----1923

FRANK PACE, Little Rock-----1923

JAMES D. HEAD, Texarkana-----1925

JOE K. MAHONY, El Dorado-----1925

HARRY L. PONDER, Walnut Ridge-----1925

## OFFICERS

Chairman-----GOVERNOR CHARLES H. BROUGH

Secretary and Auditor-----WILLIAM H. CRAVENS, Fayetteville

## COMMITTEES

*Executive Committee*—Governor Brough, Chairman; Messrs. Mahony, Head and Reagan.

*Finance Committee*—Mr. Banks, Chairman; Messrs. Head and Reagan.

*Teachers' Committee*—Mr. Bond, Chairman; Messrs. Mahony and Head.

*College of Agriculture*—Mr. Browning, Chairman; Messrs. Ponder and Pace.

*Buildings and Grounds*—Mr. Reagan, Chairman; Messrs. Ponder and Browning.

*Branch Normal School*—Mr. Bond, Chairman; Messrs. Banks and Mahony.

*Medical College*—Mr. Pace, Chairman; Messrs. Bond and Head.

*Board of Control of the Agricultural Experiment Station*—The Committee on the College of Agriculture, the President of the University, and the Director of the Experiment Station.

*Committee on Agricultural Extension*—Mr. Browning, Chairman; Messrs. Pace and Banks.

## OFFICERS OF ADMINISTRATION

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NOTE.—The first date after a title indicates the year of appointment to present rank; the second date, the year of first appointment to any position in the University. Where the two coincide, only one date is given.

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JOHN CLINTON FUTRALL, B. A., (University of Virginia), M. A.  
(University of Virginia).

*President, 1913, 1894.*

WILLIAM NATHAN GLADSON, B. M. E. (Iowa State College),  
E. E. (Iowa State College), Ph. D. (McLemorsville College).

*Vice-President and Dean of the College of Engineering,  
1914, 1894.*

\*THORGNY CEDRIC CARLSON, B. A. (University of Minnesota).

*Registrar, 1915.*

ARTHUR McCracken HARDING, B. A. (University of Arkansas),  
M. A. (University of Chicago), Ph. D. (University of Chicago).

*Examiner, 1916, 1905.*

WILLIAM HAMPTON CRAVENS,

*Auditor and Secretary to the Board of Trustees, 1911.*

KENNETH MACOMB HALPINE, Major, U. S. Army.

*Commandant, 1919.*

†GEORGE WILLOUGHBY MARTIN, Lieutenant-Colonel, U. S. Army.  
Army.

*Commanding Officer S. A. T. C., 1918, 1917.*

NEIL BUCKLEY, Captain, U. S. Army.

*Commanding Officer S. A. T. C. From November 20 to  
December 21, 1918.*

GEORGE WESLEY DROKE, B. A. (University of Arkansas), M. A.  
(University of Arkansas).

*Dean of the College of Arts and Sciences, 1915, 1880.*

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\*Absent on leave for Military Service.

†Resigned November 20, 1918.



MARTIN NELSON, B. S. A. (University of Wisconsin), M. S.  
(University of Wisconsin).

*Dean of the College of Agriculture and Director of the  
Agricultural Experiment Station, 1913, 1908.*

JAMES RALPH JEWELL, B. A. (Coe College), M. A. (Coe College),  
Ph. D. (Clark University).

*Dean of the College of Education, 1913.*

WILLIAM CASPER LASSETTER, B. S. A. (University of Wisconsin).

*Director Agricultural Extension Division, 1916, 1910.*

BERT CLAIR RILEY, B. A. (Iowa State University), B. S. A. (University of Missouri).

*Director General Extension Division, 1917, 1916.*

MARY ANN DAVIS,

*Dean of Women, 1911.*

JULIA RAMSEY VAULX, B. A. (University of Arkansas), M. A.  
(Cornell University).

*Librarian, 1914.*

BOLLING JAMES DUNN, B. A. (Bethel College), M. A. (Bethel College).

*Assistant Librarian, 1917, 1894.*

FREDERICK GOTTLIEB BAENDER, B. M. E. (Iowa State University),  
M. M. E. (Cornell University).

*Superintendent of Mechanic Arts, 1916.*

NOAH FIELDS DRAKE, C. E. (University of Arkansas), B. A.  
(Leland Stanford, Jr., University), M. A. (Leland Stanford,  
Jr., University), Ph. D. (Leland Stanford, Jr., University).

*Curator of the Museum, 1912.*

NINA VASHTI HARDIN, B. A. (University of Arkansas), M. D.  
(University of Arkansas).

*Superintendent of the Infirmary, 1910.*

NORMAN CARR PAINE, B. S. (University of Chicago), M. D.  
(Rush Medical College).

*Director of Athletics, 1917.*

JIM P. MATHEWS, B. A. (University of Arkansas).

*Assistant Librarian, 1917.*

ETHA GRACE JOHNSON,  
*Secretary to the President, 1918.*

PEARL MARION FEARS,  
*Assistant Registrar, 1918.*

FANNIE S. PARK,  
*Superintendent of Carnall Hall, 1907.*

JESSIE BLOCKER WARNER,  
*Superintendent of Men's Dormitories, 1914.*

JANE KENNEDY DICKY, B. A. (University of Kentucky).  
*Secretary of the Young Women's Christian Association,*  
1917.

WILLIAM S. GREGSON,  
*Y. M. C. A. Secretary, 1919.*

\*EUGENE GREENE NELSON, B. A. (Illinois College).  
*Y. M. C. A. Secretary, 1918.*

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\*Resigned January 1, 1919.

## FACULTY

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NOTE.—The first date after a title indicates the year of appointment to present rank; the second, the year of first appointment to any position in the University. Where they coincide, only one date is given.

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†RUSSELL HAYDEN AUSTIN, B. S. A. (University of Arkansas).  
*Instructor in Agronomy, 1918.*

†WILLIAM EMMET AYRES, B. S. (Alabama Polytechnic Institute),  
M. S. (Alabama Polytechnic Institute).  
*Instructor in Agronomy, 1916.*

FREDERICK GOTTLIEB BAENDER, B. M. E. (University of Iowa), M.  
E. (Cornell University).  
*Professor of Heat Power Engineering and Head of Department of Heat Power Engineering, 1916.*

WILLIAM J. BAERG, B. A. (University of Kansas).  
*Assistant Professor of Entomology and Acting Head of Department of Entomology, 1918.*

\*\*MARY CUMMINGS BATEMAN,  
*Instructor in Voice, 1905.*

\*\*MABEL CLAIRE BELL,  
*Assistant in Piano, 1909.*

WILLIAM LESLIE BLEECKER, D. V. M. (Ohio State University).  
*Assistant Professor of Bacteriology and Pathology and Head of Department of Bacteriology and Pathology, 1918.*

WALTER MATTHEW BRISCOE, B. A. (Ouachita College).  
*Professor of German and Head of Department of German, 1911.*

BERNARD BROWN, B. A. (Peabody College), M. S. (University of Chicago).  
*Assistant Professor of Physics, 1918, 1914.*

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†Member of Experiment Station Staff.

\*\*Absent on leave.

\*WALTER CANTRELL, B. E. E. (University of Arkansas).  
*Instructor in Radio Operation, 1918.*

\*\*JOHN MIDDLETON CLAYTON,  
*Instructor in Radio Operation, 1918.*

JOHN HENRY CLOUSE,  
*Instructor in Mechanical Engineering, 1916.*

‡JOHN RALPH COOPER, B. S. (Kansas State Agricultural College),  
M. S. (University of Nebraska).  
*Professor of Horticulture and Head of Department of  
Horticulture, 1918.*

RUTH MARY COWAN, B. S. (University of Chicago).  
*Assistant Professor of Home Economics Education, 1918.*

GERTRUDE CRAWFORD,  
*Instructor in Public School Music, 1918.*

WILLIE VANDEVENTER CROCKETT,  
*Instructor in Expression, 1905.*

WILLIAM A. CROWLEY, B. A. (Transylvania College), M. A.  
(Yale University), Ph. D. (University of Chicago).  
*Assistant Professor of Psychology, 1918.*

JOHN FRANCIS DANNER,  
*Assistant in Foundry, 1916.*

MARY ANN DAVIS,  
*Instructor in English, 1915.*

JAMES DINWIDDIE,  
*Instructor in Shopwork and Foreman of the Shops, 1916.*

NOAH FIELDS DRAKE, C. E. (University of Arkansas), B. A.  
(Leland Stanford Jr. University), M. A. (Leland Stanford  
Jr. University), Ph. D. (Leland Stanford Jr. University).  
*Professor of Geology and Mining Engineering and Head  
of Departments of Geology and Mining Engineering,  
1912.*

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\*From June 15 to December 1.

\*\*From June 15 to October 1.

‡Member of Experiment Station Staff.



GEORGE WESLEY DROKE, B. A. (University of Arkansas), M. A. (University of Arkansas).

*Professor of Mathematics and Head of Department of Mathematics, 1897, 1880.*

BOLLING JAMES DUNN, B. A. (Bethel College), M. A. (Bethel College).

*Emeritus Associate Professor of Mathematics, 1917, 1894.*

†HENRY EDMUND DVORACHEK, B. S. A. (University of Minnesota).

*Professor of Animal Husbandry and Head of Department of Animal Husbandry, 1915.*

RUTH OPHELIA DYCHE, B. A. (University of Kansas).

*Instructor in Home Economics, 1917.*

†JOHN ASBURY ELLIOTT, B. A. (Fairmont College), M. A. (University of Kansas), Ph. D. (University of Illinois).

*Professor of Plant Pathology and Head of Department of Plant Pathology, 1917.*

ISABEL FINK, Certificate d'etudes (Lycee Victor Duruy, Paris, France), Ph. B. (University of Chicago).

*Instructor in Romance Languages, 1918.*

CLARENCE JAMES FOREMAN, B. S. (Michigan Agricultural College), M. S. (Michigan Agricultural College), M. A. (University of Michigan), Ph. D. (University of Wisconsin).

*Assistant Professor of Economics, 1918, 1917.*

ELIZABETH JACKSON GALBRAITH, B. A. (West Tennessee Christian College).

*Instructor in Art, 1906.*

HARRISON CRANDALL GIVENS, B. M. E. (Cornell University), B. S. E. (University of Chicago).

*Professor of Industrial Education, 1918.*

WILLIAM NATHAN GLADSON, B. M. E. (Iowa State College), E. E. (Iowa State College), Ph. D. (McLemorsville College).

*Professor of Electrical Engineering and Head of Department of Electrical Engineering, 1895, 1894.*

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†Member of Experiment Station Staff.

- JOHN HAMLIN GLOTFELTER, LL. D. (Baker University).  
*Acting Professor of Education and Director of the Training School, 1919.*
- †ROLAND M. GOW, D. V. M. (Ohio State University).  
*Professor of Veterinary Science and Head of Department of Veterinary Science, 1914, 1909.*
- \*JAMES RICHARD GRANT, B. A. (University of Arkansas), Ph. B. Northern Illinois Normal College), M. A. (University of Chicago).  
*Assistant Professor of Education and Director of the Training School, 1914, 1912.*
- HARRISON HALE, B. A. (Emory College), M. S. (University of Chicago), Ph. D. (University of Pennsylvania).  
*Professor of Chemistry and Head of Department of Chemistry, 1918.*
- HILLEL HALPERIN, E. E. (University of Liege, Belgium), M. A. (Columbia University).  
*Assistant Professor of Mathematics, 1917.*
- KENNETH MACOMB HALPINE, Major, U. S. Army.  
*Professor of Military Art and Head of Department of Military Art, 1919.*
- JOHN LEONARD HANCOCK, B. A. (University of Chicago), M. A. (Indiana University), Ph. D. (University of Chicago).  
*Assistant Professor of Ancient Languages, 1915.*
- DAVID CLINTON HANSARD,  
*Assistant in Violin, 1916.*
- ARTHUR MCCrackEN HARDING, B. A. (University of Arkansas), M. A. (University of Chicago), Ph. D. (University of Chicago).  
*Professor of Mathematics, 1916, 1905.*
- \*MARY GARNETT HARGIS,  
*Instructor in Romance Languages, 1911, 1908.*
- \*\*OTIS HAYS,  
*Instructor in Radio Operation, 1918.*

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†Member of Experiment Station Staff.

\*Absent on leave.

\*\*From June 15 to October 15.

JEAN HILL, B. A. (Tulane University).

*Assistant in Home Economics, 1918.*

JOBELLE HOLCOMBE, B. A. (University of Arkansas), M. A. (Cornell University).

*Assistant Professor of English, 1918, 1907.*

JEWELL CONSTANCE HUGHES, B. A. (University of Arkansas), M. A. (University of Missouri).

*Instructor in Mathematics, 1918.*

ALLAN SPARROW HUMPHREYS, B. S. (Drury College).

*Instructor in Chemistry, 1918.*

CAROLINE LOUISE JENKS, B. A. (University of Michigan), M. A. (University of Chicago).

*Instructor in Education, 1916.*

JAMES RALPH JEWELL, B. A. (Coe College), M. A. (Coe College), Ph. D. (Clark University).

*Professor of Education and Head of Department of Education, 1913.*

VIRGIL LAURENS JONES, B. A. (University of North Carolina), Ph. D. (Harvard University.)

*Professor of English and Head of Department of English, 1915, 1911.*

\*ARTHUR MELVILLE JORDAN, B. A. (Randolph-Macon College), M. A. (Trinity College, North Carolina).

*Assistant Professor of Education, 1915, 1914.*

JOHN CLARK JORDAN, B. A. (Knock College), M. A. (Columbia University), Ph. D. (Columbia University).

*Professor of English and Public Speaking, 1918.*

JULIUS JAMES KNOCH, B. S. (Grove City College), M. S. (Grove City College), C. E. (Cornell University).

*Professor of Civil Engineering and Head of Department of Civil Engineering, 1896, 1893.*

VIRGIL PROCTOR KNOTT, B. C. E. (University of Arkansas).

*Associate Professor of Civil Engineering, 1907, 1904.*

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\*Absent on leave.

ETHEL RIDLEY LANIER, B. A. (Drury College), M. A. (Columbia University).

*Instructor in English, 1918.*

\*W. S. LANTHORN,

*Instructor in Bench Carpentry, 1918.*

GASTON LOUIS MAILLOU, B. A. (University of Clermont, France), M. A. (Columbia University).

*Professor of Romance Languages in charge of Department of Romance Languages, 1918.*

\*\*ANTONIO MARINONI, B. A. (Desenzano, Italy), M. A. (Yale University).

*Professor of Romance Languages and Head of Department of Romance Languages, 1906, 1905.*

WALDO EMERSON MARION, B. A. (University of Georgia), M. A. (University of Chicago).

*Assistant Professor of History and Political Science, 1918.*

RALPH HEDGES MASON, B. S. A. (University of Missouri).

*Assistant Professor of Animal Husbandry, 1918.*

ERNEST BERTRAM MATTHEW, B. A. (Kansas State Normal School), M. S. (University of Wisconsin).

*Professor of Agricultural Education, 1918.*

\*SHELTON MACK MCCRAY,

*Instructor in Auto Trades, 1918.*

†JAMES E. MCNEIL,

*Instructor in Auto Trades, 1918.*

EVELYN JOAN METZGER,

*Assistant in Art, 1910.*

WILSON LEE MISER, B. A. (University of Arkansas), M. A. (Yale University), Ph. D. (University of Chicago).

*Assistant Professor of Mathematics, 1915.*

OWEN MITCHELL,

*Assistant in Theory of Music and Piano, 1913.*

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\*From June 15 to August 15.

\*\*Absent on leave.

†From June 15 to December 21.

§HUGH ELLIS MORROW, B. S. A. (University of Arkansas).

*Associate Professor of Chemistry, 1907, 1904.*

MARTIN NELSON, B. S. A. (University of Wisconsin), M. S. (University of Wisconsin).

*Professor of Agronomy and Head of the Department of Agronomy, 1918.*

‡EUNICE OATES,

*Instructor in Radio Operation, 1918.*

ERNEST PAUL O'NEAL, B. E. E. (University of Arkansas).

*Instructor in Auto Trades, 1918.*

†LYNN WESLEY OSBORN, B. S. A. (Iowa State College).

*Assistant Professor of Agronomy, 1916, 1913.*

STELLA PALMER, B. S. (University of Alabama), M. A. (Columbia University).

*Professor of Home Economics Education and Head of Department of Home Economics, 1918.*

FRANK WELLBORN PICKEL, B. A. (Furman University), M. S. (University of South Carolina), M. Sc. (University of Chicago).

*Professor of Biology and Head of Department of Biology, 1899.*

JAMES LESLIE PURDOM, B. A. (Centre College), M. A. (Harvard University), Ph. D. (Harvard University).

*Professor of Secondary Education, 1918.*

NORMAN JOHN RADDER, B. A. (University of Wisconsin).

*Instructor in Journalism, 1917.*

\*GEORGE ALEXANDER RAUCH,

*Instructor in Radio Operation, 1918.*

JOHN WILLIAM READ, B. S. A. (University of Missouri), M. S. (University of Missouri).

*Professor of Agricultural Chemistry and Head of Department of Agricultural Chemistry, 1918.*

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§Absent on leave.

‡From June 15 to August 15.

†Member of Experiment Station Staff.

\*From June 15 to October 15.



- †RICHARD HENRY RIDGELL, B. S. (Clemson Agricultural College).  
*Instructor in Agricultural Chemistry, 1916.*
- GILES EMMETT RIPLEY, B. S. (Purdue University), M. S. (Purdue University).  
*Professor of Physics and Head of Department of Physics, 1908.*
- JOSEPH MIDDLETON ROBERTS JR., B. S. (Rutgers College, University of New Jersey).  
*Instructor in Horticulture, 1918.*
- MERWYN CHARLES RODI, B. A. (University of Michigan), B. E. E. (University of Michigan).  
*Instructor in Electrical Engineering, 1918.*
- HARRY ROBERT ROSEN, B. S. (Pennsylvania State College), M. S. (University of Wisconsin).  
*Assistant Professor of Plant Pathology, 1918.*
- ALBERT C. SANDERS,  
*Instructor in Auto Trades, 1918.*
- \*GEORGE SHELTON,  
*Instructor in Radio Operation, 1918.*
- KATE WITHERS SIMPSON,  
*Assistant in Education, 1910.*
- RUTH SPEERSTRA, B. S. H. E. (University of Wisconsin).  
*Assistant Professor of Home Economics, 1918, 1917.*
- WILLIAM BOYD STELZNER, B. E. E. (University of Arkansas), E. E. (University of Arkansas), M. S. (Ohio State University).  
*Assistant Professor of Electrical Engineering, 1909.*
- CHARLES LESLIE STEWART, B. A. (Illinois Wesleyan University), M. A. (University of Illinois), Ph. D. (University of Illinois).  
*Professor of Economics and Sociology and Head of Department of Economics and Sociology, 1918.*
- †SAMUEL RODMAN STOUT, B. S. A. (University of Arkansas).  
*Instructor in Animal Husbandry, 1917, 1916.*

---

\*From June 15 to August 15.

†Member of Experiment Station Staff.

HENRY HARRISON STRAUSS, B. A. (Wooster College), M. A. (Tulane University).

*Professor of Ancient Languages and Head of Department of Ancient Languages, 1914, 1913.*

DAVID YANCEY THOMAS, B. A. (Emory College), M. A. Vanderbilt University), Ph. D. (Columbia University).

*Professor of History and Political Science and Head of Department of History and Political Science, 1912, 1907.*

†EARL CHAPMAN THURBER, B. S. A. (Kansas State Agricultural College).

*Instructor in Animal Husbandry, 1918.*

HENRY DOUGHTY TOVEY,

*Professor of Theory of Music and Piano and Director of Department of Fine Arts, 1908.*

HARVEY MCCORMICK TRIMBLE, B. S. (University of Michigan).

*Instructor in Chemistry, 1918.*

HARRY VICTOR, B. A. (Rice Institute).

*Instructor in Civil Engineering, 1918.*

LUCY A. WAREBURTON, B. S. (Teachers' College, Columbia University), M. A. (Columbia University).

*Instructor in Education, 1917.*

CLAUDE HARRISON WATTS, B. A. (University of Illinois).

*Instructor in Economics, 1918.*

BERTRAM WHITTIER WELLS, B. A. (Ohio State University), M. A. (Ohio State University), Ph. D. (University of Chicago).

*Assistant Professor of Biology, 1918.*

\*FLOYD ZEDDIE WHALEY,

*Instructor in Radio Operation, 1918.*

JOSEPH WHEELER, Second Lieutenant, U. S. Army,

*Assistant in Military Art, 1917.*

\*\*JOSEPH WHELESS,

*Professor of Military Law and Practice, 1918.*

---

†Member of Experiment Station Staff.

\*From June 15 to October 15.

\*\*From October 1 to December 21.

AILEEN HARALSON WILLIAMS, B. A. M. (Ouachita College).  
*Instructor in Voice, 1918.*

LILLIAN E. WILLIAMS,  
*Instructor in Physical Education for Women, 1918.*

ROGER WILLIAMS, M. A. (Harvard University).  
*Assistant Professor of English, 1914, 1911.*

BIRTON NEILL WILSON, B. Sc. M. E. (Georgia School of Technology), M. E. (University of Michigan), M. M. E. (Cornell University).  
*Professor of Experimental Engineering and Drawing and  
Head of Department of Experimental Engineering and  
Drawing, 1917, 1896.*

\*JAMES WRIGHT,  
*Instructor in Radio Operation, 1918.*

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\*From June 15 to December 1.

STANDING COMMITTEES OF THE  
UNIVERSITY SENATE  
1918-1919

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*Accredited Schools*—Professors Harding, Williams, Dvorachek, Baender, Crowley.

*Advisers*—Deans Nelson, Gladson, Jewell, Droke.

*Athletics*—Professor Wilson, President Futrall, Professors Marioni, Briscoe, Knoch. Student Members: W. O. Turner, W. L. Teague, R. L. Belknap.

*Catalog*—Professors Jones, Dvorachek, Crowley, Harding, Mr. Radder.

*Commencement*—Professors Ripley, Drake, Tovey, Miss Holcombe, Mrs. Crockett.

*Discipline and Attendance*—Dean Gladson, Professors Harding, Strauss, Dvorachek, Knoch, Miss Davis.

*Graduate Study*—Dean Jewell, Professors Elliott, Stewart, Hale, Wells.

*Honorary and Higher Degrees*—Dean Droke, Professors Read, Pickel, Knott, Purdom.

*Intercollegiate Debating*—Professors Jordan, Marion, Foreman, Stewart, Jones.

*Library*—Professors Drake, Thomas, Elliott, Miss Vaulx, Dean Jewell.

*Schedule*—Professors Harding, Cooper, Wilson, Hancock, Purdom.

*Statistics*—Professors Baender, Marion, Williams, Miss Palmer, Miss Galbraith.

*Student Affairs*—Dean Gladson, Professors Jones, Hale, Miss Davis, Miss Holcombe.

*Student Organizations*—Professors Briscoe, Stelzner, Halperin, Wells, Hancock.

*Student Publications*—Professors Jones, Ripley, Stelzner, Jordan, Mr. Radder.

## GENERAL INFORMATION

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### DIVISIONS

The University of Arkansas is composed of the following divisions: The College of Arts and Sciences, the College of Education, the College of Engineering, the College of Agriculture, the Agricultural Experiment Station, and the University Extension Division, including extension in agriculture and home economics and general extension, at Fayetteville; the College of Medicine, at Little Rock; and the Branch Normal College, at Pine Bluff.

### LOCATION

Fayetteville is located in Washington County, in the northwestern part of the state, in the heart of the Ozark Mountains. The elevation of the town is about 1,500 feet. The surroundings are of great natural beauty, and the climate of the region is excellent.

Fayetteville may be reached both from the north and from the south by the Texas branch of the St. Louis and San Francisco ("Frisco") Railroad. The Muskogee division communicates with the west.

The moral and religious conditions of the community are most favorable. There are fourteen churches in the town, representing nine denominations. The pastors of these churches actively interest themselves in the moral and spiritual welfare of the students.

### HISTORY

The University of Arkansas owes its origin to an Act of Congress, approved July 2, 1862, providing that public lands should be granted to the several states, to the amount of "thirty thousand acres for each senator and representative in Congress," from the sale of which there should be established a perpetual fund, "the interest of which shall be inviolably appropriated by each state, which may take and claim the benefit of



this Act, to the endowment, support, and maintenance of at least one college, where the leading objects shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This act forbids the use of any portion of the aforesaid fund, or the interest thereon, for the purchase, erection, or maintenance of any building or buildings. The states accepting the provisions of the act are required to provide for the construction and maintenance of the necessary buildings, and for the expenses of administration in carrying out the purposes of the act.

The general assembly of the state accepted the national law by passing an act, approved March 27, 1871, which provided for the location, organization, and maintenance of the University of Arkansas. Fayetteville, Washington County, was selected as the seat, and the institution opened on January 22, 1872.

The Experiment Station owes its origin to an act of Congress of March 2, 1887 (the Hatch Act), under which the University receives \$15,000 annually for the maintenance of the Experiment Station "to aid in acquiring and diffusing among the people useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." In 1906 Congress passed an act increasing this appropriation by the sum of \$5,000 the first year, and providing for an additional increase of \$2,000 per annum, until such increased appropriation shall reach \$15,000 annually.

Under an act of Congress, approved August 30, 1890, the University receives \$25,000 annually, "to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their application to the industries of life."

On March 4, 1907, Congress passed an act increasing this appropriation at the rate of \$5,000 per annum, until the total amount appropriated annually shall reach \$50,000.

## RESOURCES

The University owns at Fayetteville equipment, buildings, and grounds estimated to be worth about \$750,000. The productive funds, derived entirely from federal land grants, amount to \$132,000. The University receives annually from the federal government the sum of \$36,363 for the support of the Agricultural and Mechanical college. It also receives annually from the federal government \$30,000 for the Agricultural Experiment Station. For the year 1917-1918 it received a state appropriation of approximately \$180,000, exclusive of extension work in agriculture and home economics. For the latter purpose it received during the same period from the state and federal governments an appropriation of approximately \$93,500. The income from endowment was \$6,183.33.

The total receipts of the University for the year ending June 30, 1918, were \$388,394. State appropriations were apportioned as follows: University, \$143,407; Agricultural work, \$40,293; Extension and Home Economics, \$38,930. Federal funds: Extension and Home Economics, \$54,475; Morrill fund for support of the Agricultural and Mechanical college, \$36,363; Experiment Station, \$30,000. The income from student fees was \$31,460; miscellaneous receipts were \$13,376.

The total expenditures for all purposes for the year ending June 30, 1918, were \$357,070.

## BUILDINGS AND EQUIPMENT

The campus comprises a tract of land of about one hundred twenty acres including some fifteen buildings. The University has its own heating plant and is supplied with electric light and water from the city plants.

*Dormitories.* Three dormitories are provided for the housing of men students. *Buchanan Hall* is a three-story brick structure and contains about forty student rooms. *Hill Hall*, named in honor of Lieutenant-General D. H. Hill, C. S. A., who served as President of the University from 1877 to 1884, was erected in 1901. It is a three-story brick structure, containing a recreation hall, dining hall, kitchen, and store-room, and about twenty rooms for students. *Gray Hall*, erected in 1905, was named in honor of Colonel O. C. Gray, C. S. A., sometime professor of mathematics

in the University. The building is two stories in height, is built of brick, and contains rooms sufficient for about one hundred students.

The dormitory for young women, *Carnall Hall*, erected in 1905, was named in honor of Miss Ella Carnall, Ph. M., sometime associate professor of English and modern languages in the University. The building is of brick construction and has three stories. It contains rooms sufficient for about one hundred students, with parlors, a dining room, and a recreation room.

A *Y. M. C. A. Hut* of the standard "D" type is the headquarters for association activities. The spacious hall, the large fireplace, and the victrola make the building popular as a place for social gatherings. The building is equipped with a modern motion picture machine with which two shows are given every week. Eight of the best current magazines are supplied by the association.

*Infirmary.* In order to safeguard the health of the students, the University has provided a well-equipped infirmary in charge of a trained nurse. This is furnished with an open ward for men, and one for women, a private ward for men and one for women, and a well-isolated contagious ward.

*Library.* The general library now occupies the south wing of the first floor of University Hall, which provides a commodious and well lighted room for study. The total number of volumes, with new accessions, is about 20,000 bound, and 2,000 unbound, exclusive of government publications. There are, in addition to the main library, departmental libraries in the College of Agriculture, the College of Education, the Departments of Mathematics, Biology, Chemistry, Geology and Mining Engineering, Physics, and Civil, Mechanical, and Electrical Engineering, devoted to these particular branches. These contain about 10,000 bound, and 3,000 unbound volumes.

*Women's Gymnasium.* For instruction in physical education for the young women students, there is provided a gymnasium in the south wing of the basement floor of University Hall. It has been equipped, as far as means were available, with modern apparatus, and is provided with lockers, dressing rooms, and shower baths.

*Athletic Field.* Grounds for athletic sports are located on the west side of the campus. The football gridiron and baseball diamond are in the south field. The north field contains the quarter mile track and facilities for basket ball, volley ball, and other games. Tennis courts for men and women are located near the dormitories. Ample provision is arranged for the seating of spectators at the athletic games.

*Armory.* The armory is a large, well-lighted room, sixty by eighty feet, occupying the entire basement of the north wing of University Hall. It is substantially furnished with arm racks, compartments for equipment, and other conveniences. The equipment consists of six hundred Krag-Jorgensen rifles; eighteen gallery rifles, 1903 Springfield model; five hundred sets of leather infantry equipment; signal flags; non-commissioned officers' swords; and ammunition furnished by the national government. National colors, cadet officers' swords, and a set of band instruments have been purchased by the University.

*Book Store.* The book store on the first floor of University Hall carries a complete line of all required text-books and supplies for the convenience of students.

*University Hall,* erected in 1872, is the "old main building" of the University. It is five stories in height, forming three sides of a quadrangle. It contains about seventy rooms occupied by the offices of administration and the class-rooms and laboratories of the College of Arts and Sciences.

The *Biological Laboratory* is situated on the second floor and has accommodation for about forty students. The laboratory is furnished with work-tables, a sink, and the necessary gas fixtures for incubators, sterilizers, and similar apparatus; also with an aquarium for keeping aquatic animals and plants for observation and study. The equipment in apparatus consists of compound microscopes, dissecting microscopes, microtomes, and such other apparatus and chemicals as are needed for the practical work in biology. There is also apparatus for collecting, drying, preserving, and mounting insects. The laboratory has a number of skeletons of animals, and models and charts for teaching plant and animal anatomy.

The *Geological Laboratory* occupies the fourth floor. The department is equipped with maps, relief maps, minerals, and rock

specimens; and with aneroid barometers, compasses, hand-levels, and pedometers, for field work. There is also a well equipped laboratory for determinative mineralogy.

The *Museum* is located on the fourth floor. The contents have been collected with the view of facilitating instruction in geology and biology. That portion of the collection suitable for display is arranged in glass cases, while the working collection is in drawers. *Relief maps* have been placed in the museum for the following regions: geological relief maps of Arkansas, Colorado Canyon, central Tennessee, and the United States; a convex relief map of the United States on a section of a globe sixteen feet in diameter, relief maps of Carmel Bay, California, Ice Springs Crater, Utah, Yosemite Valley, Palestine, Mount Vesuvius, and San Francisco; and a sectional geological relief map of the Leadville region in Colorado. The *mineral collection* contains about three thousand specimens, representing different mineral groups. The *petrographic collection* consists of a large number of specimens representing sedimentary, igneous, and metamorphic rocks, with a large collection of stone from different parts of the country. The *paleontological collection* contains a large number of invertebrate fossils representing principally the fauna of the different geological horizons in northern Arkansas. The *Major Earle Collection* of minerals and fossils was placed in the museum by Major F. R. Earle. The *zoological* and *botanical collections* consist of two hundred birds and mammals, representing eighty species; two hundred reptiles and amphibians, representing forty species; fifteen hundred fishes, representing three hundred fifty species; one thousand insects and other invertebrates, representing two hundred species; and several skeletons.

The *practice rooms* of the Department of Music are located on the fourth floor of the north wing.

*Art Studio.* The art studio is located on the third floor of the north wing. It is equipped for class-room work and practice in design, drawing, and painting.

*Chemistry Hall*, erected in 1905, is situated north of University Hall. On the first floor are laboratories for quantitative and qualitative analysis, organic chemistry, and physical chemistry, a balance-room, and a library. On the second floor is a



large lecture room and a general laboratory for first year students. In the basement are store-rooms and a laboratory for assaying. All of the laboratories are provided with work-tables, sinks, hoods, water, and gas.

*Peabody Hall* is used exclusively by the College of Education. It contains about thirty rooms planned and equipped especially for adaptation to the work of training teachers, including a manual training shop, home economics laboratories, a large assembly room, quarters for the training school, and a large and well-lighted reading room, supplied with professional books and magazines.

Ample provision has been made for the training school for teachers. Rooms are provided where children doing work of both elementary and high school character are taught. Any pupil residing in the state of Arkansas is eligible for admission to the University Training High School, providing that he has exhausted the school privileges of his home community. Such pupils must be at least fifteen years of age and of good moral character.

*Home Economics Laboratories.* Practically all of one floor is occupied by the laboratories for cookery, sewing, millinery, and table service, and the reception room. The equipment in each laboratory is new and modern, chosen for its utility and convenience. It is sufficient to carry on successfully the work of the classes in the various branches of home economics.

*Engineering Hall*, erected in 1904, lies a short distance to the south of University Hall. The first story is built of native sandstone, and the upper two stories are of brick trimmed with limestone. The building contains the offices, recitation rooms, drawing rooms, and testing laboratories of the physics, and civil, electrical, and mechanical engineering departments.

The *physical laboratory* is located on the first floor. It is equipped with modern instruments in quantity sufficient for the laboratory work of the courses in physics.

*Physics Hall*, built in 1917, is located southwest of University Hall. It is a two-story building containing ten rooms well arranged for lecture and laboratory work in physics. On the first

floor are two laboratory rooms, a large lecture room, a store-room, and an office room. The second floor includes a large lecture room, a laboratory room, a photometric room, a workshop room, and a library. The building is equipped with gas, water, and electric light, and is steam heated. The lecture room tables are wired for both alternating and direct currents, piped for water, gas, high pressure steam, high pressure air, and vacuum work. Concrete piers are provided for all delicate work in the laboratories and for the delicate balances. The equipment of apparatus is fairly complete and is of exceptional quality and of sufficient variety and duplication to permit of the instruction of large sections in the laboratories.

The *civil engineering instrumental laboratory* is located on the first floor. It is provided with all the necessary instruments for work in land, railroad, and city surveying and office work. The equipment of field instruments has been so selected as to afford students the opportunity of becoming familiar with the instruments of the different manufacturers. Among the instruments there are a number of engineers' transits and Y levels, theodolites, transit and solar attachment, compasses, hand levels, standard and ordinary steel tapes, plane tables, sextant, and aneroid and mercurial barometers. An equipment for practical astronomy has been added, consisting of a large altazimuth, reading to seconds by levels and micrometers; a sidereal clock with break-circuit attachment; and a chronograph reading to tenths of seconds.

The *civil engineering experimental laboratory* for testing materials of construction and for work in hydraulics is situated in the northwest corner of the basement in a well-lighted room having a floor space of 2,450 square feet. The equipment for testing the quality and strength of cements and mortars includes one 2,000-pound tension machine, one 1,000-pound automatic machine, brass molds for tension compression, and transverse test pieces, storage tanks and apparatus for testing fineness, specific gravity, and activity, and for accelerated tests. The equipment for testing steel includes a 4,000-pound tension machine and a 5,000-pound transverse machine for tests on bars, and a Fremont impact testing machine. The equipment for experiments in hydraulics consists of a Pelton water wheel, an

hydraulic engine, water meters, weirs, and other apparatus. The laboratory is also well equipped for making blue and brown prints of any size up to 36x64 inches.

New equipment for testing materials for roads and pavements has recently been added. This equipment is modeled after that used in the laboratory of the Office of Public Roads at Washington, D. C., and includes an impact testing machine, a cementation impact testing machine, a diamond core drill and press, a briquette machine, a ball grinding machine, a rattler for paving brick, an abrasion machine for broken stone, and other apparatus.

The *electrical engineering dynamo laboratory*, situated in the east end of the basement, affords excellent facilities for experimental work with practical machinery. The power is supplied by a 3-horsepower, vertical type, double cylinder gasoline engine and a 20 k. w. induction motor. A 60-cell, 300-ampere-hour storage battery supplies current for experiments in which absolutely steady power is desired. There are direct current dynamos and motors of the constant current and constant potential types, transformers, converters, synchronous and induction motors, with a liberal supply of measuring instruments for use with the various machines. Single, two, and three-phase alternators supply current at various voltages and frequencies.

The *electrical engineering senior laboratory* is situated on the first floor. It is supplied with direct current at 110, 220, and 500 volts, and alternating current, single phase, at 50, 110, or 220 volts, and 60 cycles; two phase, 60 cycle at 110 or 220 volts; three phase, at 110 or 220 volts, with a frequency of 60 to 113 cycles a second. A high tension testing transformer supplies current at any voltage up to 120,000 for testing of insulators, while standard cells, a Kelvin balance, and a potentiometer furnish means for calibrating the laboratory measuring instruments.

Students are also permitted to inspect the plant of the Fayetteville Electric Light and Power Company, take measurements and make tests on it. Its primary mains supply the electrical laboratory with alternating current at 60 cycles and 2,000 volts.

The *photometric laboratory*, which also serves as a photographic and X-ray dark room, is supplied with standard photo-

meter bar, Lummer-Brohun screen, and amyl-acetate standard lamp.

The *experimental engineering laboratory* contains the following machinery: one 35-horsepower compound automatic steam engine, one Hornsby-Akroyd oil engine, one Kerr steam turbine, one slide valve steam engine, one 10-horsepower Weber gasoline engine, three small Cardinal gasoline engines made in the University shops, one 35-horsepower Westinghouse compound steam engine, one 50-horsepower Wheeler condenser with air, water, and circulating pumps, one pulsometer steam pump, and one 60,000-pound Rheile testing machine for testing materials such as wood, steel, and cast iron in tension and compression. This machine is also equipped for testing large beams of steel, concrete or timber.

The laboratory is well provided with apparatus for experimental work, including a Mahler bomb calorimeter for testing fuels, an Orsat apparatus for flue gas analysis, a Junker calorimeter, an Olsen oil testing machine, a viscosimeter, a flash point tester, a Pitot meter, and anemometer, pressure gauges, measuring tanks, water meters, and scales.

The steam boilers used for heating the University buildings are arranged so as to be available for experimental work. The Corliss shop engine, the feed water pumps, and the Westinghouse air compressor are also used for purposes of instruction.

By special arrangements with the Fayetteville Water Company, students are allowed to run tests in this plant.

*Mechanical Hall* contains the machine shop, wood shop, foundry, and forge shop. The shops will accommodate about seventy-five students at one time. Adjoining on the east is a boiler room.

The *machine shop* contains a Corliss engine, which runs the machinery in the whole building, a large iron planer, a shaper, several lathes of different sizes and makes, a drill press, grinding machines, a milling machine, and a good supply of hand tools, benches, and materials. The *foundry* contains one Colleau cupola with a capacity of one and one-half tons of iron an hour, one brass furnace of one hundred and fifty pounds capacity, Buffalo pressure blower, and core oven. The *wood shop* contains one buzz planer, one large cylinder planer, a circular saw,

a band saw, five smaller lathes, one 18-inch pattern maker's lathe, one double column shaper, and twenty-six benches, each equipped with a complete set of carpenter's tools. The *forge shop* contains eight Buffalo forges with down draft, which takes the smoke away through an underground pipe, thus avoiding the smoke and dirt of the ordinary blacksmith shop. It also contains a shearing and punching machine, eight anvils of different weights, and all the necessary blacksmith tools for the eight forges. The *boiler room* contains three fire-tube boilers, and three water-tube boilers, besides feed pumps, injectors, and measuring tanks.

The *Agricultural Hall*, the *Experiment Station Building*, and the *Dairy Building*, provide class rooms and laboratories for the College of Agriculture.

*Agricultural Chemistry Laboratory.* The laboratory of agricultural chemistry is situated in the Experiment Station Building. It is equipped with water, gas, tables, hoods, and all apparatus necessary for analytical problems in agriculture.

*Cotton Laboratory.* The cotton laboratory is situated in the Agricultural Building. It is equipped for technical study of cotton and cotton fiber in addition to the more practical study. A new improved gin, a common gin, a fibre-strength testing machine, a lantern for the study of length and character of fiber, microscopes, and hundreds of samples of cotton, representing all types and grades, are available for instruction and research.

*Entomological Laboratory.* The entomological laboratory is situated on the first floor of Agricultural Hall, occupying two rooms. It is well supplied with apparatus, such as microscopes, microtomes, paraffin baths, dissecting instruments, collecting nets, insect cabinets, and work-tables. The collection of insects is growing rapidly and serves as a valuable aid to the student of entomology.

*Field Crops Laboratory.* The laboratory of field crops is situated on the second floor of the Agricultural Building. A complete set of material is used in the study of types, strains, and quality, and the scoring and judging of staple and miscellaneous crops.

*Horticultural Laboratory.* For such work as must be carried



on indoors, there is available for study and practice a fairly complete equipment of spraying machinery, garden tools, implements, and conveniences. There are rooms equipped for practical instruction in grafting, seed sowing, seed testing, and transplanting. The greenhouse offers facilities for some phases of class work, plant study, and practice. By using the orchard, garden, greenhouse, and campus as a laboratory, the student has opportunity to combine theory and technique in the most beneficial manner.

*Plant Pathology Laboratory.* The laboratory of plant pathology is situated in the Experiment Station Building. It is equipped with high power microscopes and such apparatus as is needed for the study of plant tissues and plant diseases.

*Soils Laboratory.* The soils laboratory is located on the first floor of the Agricultural Building. It is equipped with apparatus for special study of soils with the view of giving the student an insight into the formation, composition, and character of soils with reference to their bearing upon soil fertility, adaptability, and all methods of soil treatment affecting the productivity and conservation of soils.

*Bacteriology Laboratory.* The research laboratory of the department is located in the Experiment Station Building, where a part of the instruction in bacteriology is given. A well equipped laboratory in the Dairy Building is used for the major part of the student work.

*Dairy Laboratories.* The Dairy Building is equipped with a full line of modern dairy machinery. A modern creamery is operated throughout the year. Student laboratories are equipped for the study of sanitary principles in dairying and with separators, churns, vats, and equipment for standard home dairying.

*Animal Husbandry Laboratories.* Modern barns, including dairy barn, horse barn, hog barn, and poultry houses, are easily accessible for use in instruction. The livestock—horses, cattle, swine, and poultry—form the basis for instruction in animal industry.

## SUMMER TERM

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The ninth summer term of the University will open on June 23, and close on August 2, 1919.

Courses in preparatory and college subjects will be offered by a faculty composed almost wholly either of heads of departments in the various faculties of the University, or of experts of recognized ability from other states. A model school will be conducted for the demonstration of the best methods of teaching in the primary and grammar grades. The University Training High School will be in session and will be in the hands of some of the best superintendents of schools in Arkansas. One unit of entrance credit may be secured during the summer school. A limited amount of practice teaching can be done.

Courses completed in the summer term will be credited toward a degree, provided that entrance requirements have been met. Ten term hours is the maximum that may be earned in any one session. It should be noted that by attending several summer terms one's college course may be shortened to three or three and a half years.

Courses for freshmen in all of the four colleges of the University, Arts and Sciences, Agriculture, Education or Engineering, will be offered, and graduates of high schools are particularly urged to begin their college work in June instead of September. Courses will be offered this summer in all three phases of Smith-Hughes work in vocational education, namely, in agriculture, home economics, and in industrial arts; also in manual training, shorthand, typewriting, rural school management, special methods in language, reading and number work, and in plays and games.

More detailed information in regard to the courses offered, matriculation and registration, may be had from the Summer Term Bulletin, which will be sent on request. Address requests for information to Registrar, University of Arkansas, Fayetteville, Arkansas.

# ADMISSION

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## GENERAL REQUIREMENTS

Admission to any college of the University of Arkansas may be obtained either by certificate from an accredited high school or preparatory school or by examination. For unconditional entrance, the candidate must be a graduate of an accredited four-year high school or preparatory school and must have completed satisfactorily at least fifteen entrance units so chosen as to include those subjects prescribed by the college he desires to enter. Where a candidate is deficient in not more than two units, he may be allowed conditional entrance with the provision that all such deficiencies must be removed during the first year of his attendance at the University by offering high school courses or University courses of a preparatory nature in satisfaction of the deficiencies. Where a candidate enters with less than four full years of high school work he is conditioned on two units. Any such student who has completed fifteen or more units in acceptable courses in the high school may have this condition removed by making a passing grade on twelve hours of work in the first term of the freshman year, otherwise he shall make up this condition in the manner described above. It should be understood that students who are admitted with conditions of more than one unit, as a rule, will find it necessary to attend an additional term or year in order to meet the requirements for a degree.

## ADMISSION BY EXAMINATION

Entrance examinations are offered at the University during the opening week of school, September 22 and 23, inclusive. Students living at a distance from the University may secure special examinations to be conducted by the principal or the county examiner under conditions that will be indicated when the application is made. Requests for examinations must be mailed so as to reach the Registrar not later than September 1.

## ADMISSION BY CERTIFICATE

Students may enter the freshman class by certificate from any high school or preparatory school in the state accredited to the University in thirteen or more units, or from any high school or preparatory school in another state similarly accredited to the state university of that state. An official statement of the student's record containing specific information as to the kind and extent of work done should be mailed to the Registrar of the University not later than September 1. Blank forms for this purpose will be furnished upon request. *Diplomas of graduation will not be accepted in lieu of certificates.*

Students who have been admitted to another college or university of equal standing will be allowed to enter without conditions upon presenting a certificate of honorable discharge and an official statement of the work accepted for entrance by the institution last attended, provided it appears that such work is substantially equivalent to the work required for entrance to the University of Arkansas.

## OUTLINE OF ENTRANCE REQUIREMENTS

## COLLEGE OF ARTS AND SCIENCES

The following units are prescribed for the course leading to the degree of *Bachelor of Arts*:

English, three units.

Algebra, one unit.

Geometry, one unit.

History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. Where a student is not able to meet this requirement at entrance, he may be allowed to take as a part of his college course, in addition to the language requirement for a degree, a one-year course in foreign language of not less than three hours for each entrance unit he is deficient.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the course leading to the degree of *Bachelor of Science in Chemistry*:

English, three units.

Algebra, one unit.

Geometry, one unit.

History, one unit.

Physics, one unit.

Four additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the special courses in music:

English, three units.

History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. Where a student is not able to meet the requirement at entrance, he may be admitted to take as a part of his college course, in addition to the language requirement for a diploma, a one-year course in foreign languages of not less than three hours for each entrance unit he is deficient.

Four additional units to bring the total to fifteen, including not more than four units in vocational and business subjects. A maximum of three units in music may be used as part of the elective work.

### COLLEGE OF EDUCATION

The following units are prescribed for all courses:

English, three units.

History, one unit.

Science, one unit.

Four additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.



*COLLEGE OF ENGINEERING*

The following units are prescribed for all four-year courses\*:

- English, three units.
- Algebra, one and one-half units.
- Geometry, one unit.
- History, one unit.

Students will be allowed to bring the total to fifteen, in units, but more than four units in vocational and business subjects.

*COLLEGE OF AGRICULTURE*

The following units are prescribed for the four-year courses:

- English, three units.
- Algebra, one and one-half units.
- Geometry, one unit.
- History, one unit.
- Science, one unit.

Students will be allowed to bring the total to fifteen, in units, but more than four units in vocational and business subjects.

\*For a statement of the entrance requirements to the engineering trade courses, see page 166.

## DESCRIPTION OF SUBJECTS ACCEPTED FOR ADMISSION

The following statements indicate in a general way the preparation which is expected in the various subjects accepted for admission. The numbers in parentheses following each subject indicate the minimum and maximum number of units which may be offered in that subject. The term unit is understood to represent a high school or preparatory course continued through a school year of thirty-six weeks with five recitations of forty-five minutes each a week.

## ENGLISH (3-4)

In order to secure a definite plan of study and unity of method on the part of preparatory schools, the entrance requirement in English is outlined below somewhat in detail, following the recommendations of the National Conference on Uniform Entrance Requirements in English.

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

*Grammar and Composition.*—The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered, and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

*Literature.*—The second object is sought by means of two lists of books, headed respectively *Reading* and *Study*, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages both in verse and in prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

## LIST OF BOOKS, 1919

A. *Reading*.—The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature by giving him a first-hand knowledge of some of the best specimens. He should read the books carefully, but his attention should not be so fixed upon details as to cause his missing the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group I.

Group I. *Classics in Translation*.—*The Old Testament*, comprising at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Samuel*, *King*, and *Daniel*, together with the books of *Ruth* and *Esther*; the student may, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII, the *Psalm*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; the *Aeneid*, *The Odyssey*, *Iliad*, and *Aeneid* should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II. *Drama*.—Shakespeare, *A Midsummer Night's Dream*, *Merchant of Venice*, *As You Like It*, *Twelfth Night*, *The Tempest*, *Romeo and Juliet*, *King John*, *Richard II*, *Richard III*, *Henry V*, *Coriolanus*, *Caesar*, *Macbeth*, *Hamlet*. (No one of the last three may be taken if chosen for study under B.)

Group III. *Prose Fiction*.—Malory, *Morte d'Arthur* (about 100 pages); Parnassus, *Plutarch's Lives*, Part I, South, *Gulliver's Travels* (voyages to Lilliput and to Brobdingnag); DeFoe, *Robinson Crusoe*, Part I; Goldsmith, *The Vicar of Wakefield*; Frances Burney (*Madame d'Arblay*), *Novels*; Scott, any one of the novels; Jane Austen, any one of the novels; Maria Edgeworth, *Castle Rackrent*, or *The Absentee*; Dickens, any one of the novels; Thackeray, any one of the novels; George Eliot, any one of the novels; Mrs. Gaskell, *Cranford*; Kingsley, *Westward Ho!* or *Hereward the Wake*; Raskin, *The Cloister and the Hearth*; Blackmore, *Lorna Plaine*; Hughes, *Tom Brown's School Days*; Stevenson, any one of the novels which are out of copyright; Cooper, any one of the novels; Poe, *Selected Tales*; Hawthorne, any one of the novels which are out of copyright; a collection of *Short Stories* by various standard writers.

Group IV. *Essays and Biographies*.—Addison and Steele, *The Sir Roger de Coverley Papers*, or selections from *The Tatler* and *The Spectator* (about 200 pages); Boswell, selections from the *Life of Johnson* (about 200 pages); Franklin, *Autobiography*; Irving, selection from the *Sketch Book* (about 200 pages); or the *Life of Goldsmith*; Southey, *Life of Nelson*; Lamb, selections from the *Essays of Elia* (about 100 pages); Lockhart, selections from the *Life of Scott* (about 200 pages); Thackeray,

lectures on *Swift*, *Addison*, and *Steele* in the *English Humorists*; *Macaulay*, one of the following essays: *Lord Clive*, *Warren Hastings*, *Milton*, *Addison*, *Goldsmith*, *Frederick the Great*, *Madame d'Arblay*; *Trevelyan*, selections from the *Life of Macaulay* (about 200 pages); *Ruskin*, *Seasame and Lilies*, or *Selections* (about 150 pages); *Dana*, *Two Years Before the Mast*, *Lincoln*, *Selections*, including at least the two inaugurals, the speeches in Independence Hall and at Gettysburg, the last public address, and the letter to Horace Greeley, together with a brief memoir or estimate of Lincoln; *Parkman*, *The Oregon Trail*; *Thoreau*, *Walden*; *Lowell*, *Selected Essays* (about 150 pages); *Holmes*, *The Autocrat of the Breakfast Table*; *Stevenson*, *An Inland Voyage and Travels with a Donkey*; *Huxley*, *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; a collection of *Essays* by *Bacon*, *Lamb*, *De Quincey*, *Hazlitt*, *Emerson*, and later writers; a collection of *Letters* by various standard writers.

Group V. *Poetry*.—*Palgrave*, *Golden Treasury (First Series)*, Books II and III, with special attention to *Dryden*, *Collins*, *Gray*, *Cowper*, and *Burns*; *Palgrave*, *Golden Treasury (First Series)*, Book IV, with special attention to *Wordsworth*, *Keats*, and *Shelley* (if not chosen for study under B); *Goldswith*, *The Traveller* and *The Deserted Village*, *Pope*, *The Rape of the Lock*; a collection of English and Scottish *Ballads*, as for example, *Robin Hood*, *The Battle of Otterburn*, *King Estmere*, *Young Beichan*, *Bevick and Grahame*, *Sir Patrick Spens*, and a selection from later ballads; *Coleridge*, *The Ancient Mariner*, *Christabel*, and *Kubla Khan*; *Byron*, *Childe Harold*, Canto III, or Canto IV, and *The Prisoner of Chillon*; *Scott*, *The Lady of the Lake*, or *Marmion*; *Macaulay*, *The Lays of Ancient Rome*, *The Battle of Naseby*, *The Armada*, *1574*; *Tennyson*, *The Princess*, or *Gareth and Lynette*, *Lancelot and Elaine* and *The Passing of Arthur*; *Browning*, *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herzê Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Dinner in the City*, *The Italian in England*, *The Patriot*, "De Gustibus . . ." *The Pied Piper*, *Instant Tyrannus*; *Arnold*, *Sohrab and Rustum* and *The Forsaken Merman*, selections from American poetry, with special attention to *Poe*, *Lowell*, *Longfellow* and *Whittier*.

B. *Study and Practice*.—This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

Group I. *Drama*.—*Shakespeare*, *Julius Cæsar*; *Macbeth*; *Hamlet*.

Group II. *Poetry*.—*Milton*, *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; *Tennyson*, *The Coming of Arthur*, *The Holy Grail* and *The Passing of Arthur*; the selections from *Wordsworth*, *Keats*, and *Shelley* in Book IV of *Palgrave's Golden Treasury (First Series)*.

Group III. *Oratory*.—Burke, *Speech on Conciliation with America*; Macaulay, *Speeches on Copyright*, and Lincoln, *Speech at Cooper Union*; Washington, *Farewell Address* and Webster, *First Bunker Hill Oration*.

Group IV. *Essays*.—Carlyle, *Essay on Burns*, with a selection from Burns's *Poems*; Macaulay, *Life of Johnson*; Emerson, *Essay on Manners*.

### LIST OF BOOKS, 1920-1922

For 1920-1922 the College Entrance Examination Board has prepared two lists of books, a "Restricted" list and a "Comprehensive" list. The choice of books for reading and study in the Comprehensive list is rather wide. Copies of this list may be secured from the publishing houses, or from the College Entrance Examination Board, 431 West 117th Street, New York City. It should be noted that, though the Comprehensive list contains a number of books by living writers, it does not include contemporary novels of no permanent value. Such novels will not be accepted as part of the entrance requirement. The Restricted list is printed below, with semicolons used to set off the units. The regulations for selecting the units correspond to the regulations for the preceding list for 1919.

#### A. READING

Group I. *Classics in Translation*.—*The Old Testament*, at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Ezra*; the *Odyssey*, with the omission, if desired, of Books I-V, XV, and XVI; the *Aeneid*. The *Odyssey* and the *Aeneid* should be read in English translations of recognized literary excellence.

Group II. *Drama*.—Shakespeare, *Merchant of Venice*; *As You Like It*; *Julius Caesar*.

Group III. *Prose Fiction*.—Dickens, *A Tale of Two Cities*; George Eliot, *Silas Marner*; Scott, *Quentin Durward*; Hawthorne, *The House of Seven Gables*.

Group IV. *Essays, Biographies, etc.*—Addison and Steele, *The Sir Roger de Coverley Papers*; Irving, *The Sketch Book* (selections covering about 175 pages); Macaulay, *Lord Clive*; Parkman, *The Oregon Trail*.

Group V. *Poetry*.—Tennyson, *The Coming of Arthur*, *Gareth and Lynette*, *Lancelot and Elaine*, *the Passing of Arthur*; Browning, *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Phedippides*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The Pied Piper*, "De Gustibus"—, *Instans Tyrannus*; Scott, *The Lady of the Lake*; Coleridge, *The Ancient Mariner*, and Arnold, *Schubert and Rastum*.



## B. STUDY

Group I. *Drama*.—Shakespeare, *Macbeth*, or *Hamlet*.

Group II. *Poetry*.—Milton, *L'Allegro*, *Il Penseroso*, *Comus*; Book IV of Palgrave's *Golden Treasury* (First Series), with special attention to Wordsworth, Keats, and Shelley.

Group III. *Oratory*.—Burke, *Speech on Conciliation with America*; Washington, *Farwell Address* and Webster, *First Bunker Hill Oration*, and Lincoln, *Gettysburg Address*.

Group IV. *Essays*.—Macaulay, *Life of Johnson*, Carlyle, *Essay on Burns*, with a brief selection from Burns's *Poems*.

## MATHEMATICS

*Elementary Algebra* (1).—Positive and negative numbers; addition, subtraction, multiplication, division; factoring, highest common divisor and lowest common multiple by factoring; fractions; equations of the first degree in one, two and three unknowns, with numerous problems involving such equations; involution (omitting the binomial theorem); evolution (omitting cube root); elementary manipulation of surds; irrational equations that lead to equations of the first degree; pure quadratic equations; affected quadratic equations by the method of completing the square and by factoring, with problems involving such equations. Hawkes-Luby-Touton, *First Course in Algebra*, or its equivalent, will be accepted as a satisfactory text.

*Higher Algebra* (2).—A review of the elementary algebra with more difficult problems and with some demonstrational work; theory of quadratics, simultaneous quadratics, inequalities, ratio and proportion, variation, progressions (arithmetical, geometrical, and harmonical), binomial theorem, and logarithms. Hawkes-Luby-Touton, *Second Course in Algebra*, or its equivalent, will be accepted as a satisfactory text.

*Plane Geometry* (1). Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solutions and demonstrations should be emphasized.

*Solid Geometry* (2).—Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solutions and demonstrations should be emphasized.

*Plane Trigonometry* (2).—This should include a thorough study of some standard high school text, such as Harding and Turner's *Plane Trigonometry*. The exercises requiring solutions and demonstrations should be emphasized.

## HISTORY AND SOCIAL SCIENCES

## HISTORY

*Ancient History* (2-1).—The completion of a standard text-book, with emphasis on the history of Greece and Rome and some attention to geography, will satisfy the requirements for one unit.

*Medieval and Modern History* (3-1).—The completion of a standard text covering the history of Europe in medieval and modern times, some parallel reading, and a knowledge of the geography involved, will satisfy the requirements for one unit.

*English History* (3-1).—An advanced high school text should be used. Constitutional points should receive attention, and easily accessible documents should receive careful study.

*American History* (3-1).—An advanced high school text should be used and the subject should be taken preferably in the senior year. Current newspapers and magazines should be assigned as collateral reading.

#### SOCIAL SCIENCES

*Civil Government* (3).—This should be a study of our government, national, state, and local, as it is organized and actually operated today. The instruction should aim to impart information essential to intelligent, active citizenship, such as the division of the government into departments, their organization and functions; the methods of nominating, electing, and appointing men to office; of framing and amending constitutions, city charters, and statutes; of drawing grand and petit juries and the duty of the citizen to serve on them; the distinction between common law, state law, and constitutional law; between equity, civil, and criminal cases.

*Elementary Economics* (3).—In the study of economics it is desirable to avoid two extremes, abstract theory on the one hand, and controversial questions, such as the tariff, trusts, and trade unions, on the other hand. Emphasis should be placed on historical and descriptive matter, especially relating to the economic development of England and the United States. Some good elementary textbook should be mastered and a reasonable amount of collateral reading required.

*Commercial Geography* (2).—This describes and seeks to explain the commerce of today. The work should cover the ways in which commerce depends on nature and on man, the development of means of transportation and communication, and a detailed study of the several commercial regions of the world with reference to resources, industries, transportation facilities, and commerce. It should be based on a text-book supplemented by map work and assigned readings.

#### LANGUAGES

##### LATIN

*Latin Grammar* (1).—This should include a thorough grounding in some standard elementary Latin Grammar, such as Bennett, Hale-Buck, or Allen and Greenough, revised edition. Proficiency is particularly desired in the following subjects: the analysis of the verb forms, the rules of syntax, and the principal parts of the irregular verbs.

*Caesar* (3-1).—First four books or selections from the seven books equivalent to four. The student is expected to be familiar with the life of Caesar and an account of his wars.

*Cicero* (4-1).—Any four orations from the following list: *Against Catiline*, *Poet Archias*, *Ligarius*, *Marcellus*, *Manillian Law* (to count as two orations), the fourteenth *Philippic*. The student should also be familiar with the life of Cicero.

*Vergil* (4-1).—Six books of the *Aeneid*. The student should be familiar with the life of Vergil and an account of his times and writings. A correct rythmical reading of the text is to be encouraged.

#### GREEK

*Greek Grammar* (1).—This should include a thorough grounding in some standard elementary Greek Grammar, such as White's *First Greek Book*, with translation from Xenophon's *Anabasis*, Book I.

*Xenophon's Anabasis* (1-2).—Four books, accompanied by work in grammar and composition.

#### GERMAN

*German Grammar* (1).—The student should know the rudiments of grammar and be able to read easy prose at sight and to translate simple English sentences into German.

*Advanced German* (1-3).—The student should be able to read modern German prose and poetry at sight and to translate easy English narrative into German. A considerable amount of reading from such authors as Riehl, Heyse, Freytag, Baumbach, Heine, Goethe, and Schiller will be expected.

#### FRENCH

*French Grammar* (1).—The student should be familiar with elementary French grammar, with special attention to the irregular verbs. He should be able to read easy prose at sight and to translate simple English sentences into French.

*Advanced French* (1-3).—The student should be able to read standard French prose and poetry at sight and to translate easy English narrative into French. A considerable amount of reading from such authors as Daudet, Loti, Sandeau, Dumas, Augier, Labiche and Martin, and Hugo will be expected.

#### SPANISH

*Spanish Grammar* (1).—The student should be familiar with elementary Spanish grammar and should be able to read easy prose and to translate simple English sentences into Spanish.

*Advanced Spanish* (1-3).—The student should be able to read standard Spanish prose and poetry at sight and to translate easy English narrative into Spanish.

#### NATURAL SCIENCES

All of the courses in natural science should include at least two periods of laboratory work per week.

*General Science* (1-1).—This should include a study of the earth and the sun in their relations to man, based on some such text as Snyder's *First Year Science*. All branches of elementary science should be included.

*Physiology* (1-1).—This should include a thorough study of some standard high school text such as Hough and Lee or Martin, with notebooks, drawings, individual laboratory instructions, and demonstration work.

*Physical Geography* (1-1).—A thorough study of any standard high school text supplemented by laboratory exercises will satisfy the requirements.

*Physics* (1-1). This should include a study of at least four of the following topics: mechanics of solids, liquids, and gases, sound, heat, light, electricity, and magnetism, based on some standard high school text and supplemented by laboratory exercises.

*Chemistry* (1-1).—The full year's work should include a study of both the metals and non-metals with laboratory experiments to illustrate the common chemical laws and the more simple chemical reactions.

*Biology* (1-1).—A thorough study of any standard high school text supplemented by laboratory exercises will satisfy this requirement.

*Botany* (1-1).—The course should follow as closely as possible the nature and work of plants during the changing seasons of the year. The major portion of the work should be with living plants, naming the common plants of the neighborhood, both cultivated and native, and studying plant parts from seed to maturity.

*Zoology* (1-1).—Animals should be studied as living units in their relation to one another and their environments. This study should include developmental stages as well as the adult stage. The aim of the teacher should be to foster a love for animate nature and to develop accuracy in observation and description.

## VOCATIONAL SUBJECTS

Not more than four units are allowed in vocational subjects, which include business subjects, manual training, domestic art and science, and agriculture.

### BUSINESS SUBJECTS

*Business Law* (1).—Text-book supplemented by study of a few typical cases, and practice in drawing up ordinary legal papers, such as bills, notes, checks, etc.

*Elementary Bookkeeping* (1).—A text-book should be employed with exercises so arranged that no two pupils will do exactly the same work, and no credit should be allowed unless the work is done neatly, accurately, and at a satisfactory rate of speed. It is suggested that double periods

be provided, and all work be done in class under the eye of the instructor. The set used should include the journal, cash book, sales book, ledger, check book, bank pass book, and trial balance book.

*Advanced Bookkeeping and Business Practice* (1).—Thorough drill on standard business forms, such as bills, receipts, checks, and notes, also on the use and meaning of business symbols and abbreviations. The student should become acquainted with the bill and invoice book, and loose leaf and voucher systems of bookkeeping. Each student should carry on a business of his own, first as an individual, then as a partnership, and finally as a corporation. Credit on this course should mean that the student lacks only age and actual business experience to become a competent bookkeeper.

*Stenography and Typewriting* (1). This work is expected to occupy not less than two periods daily for two years. No credit should be given for either shorthand or typewriting if taken alone. Nothing but the touch method should be used in typewriting. The essentials are: first, accuracy and speed in taking dictation and transcribing notes; secondly, correct spelling, capitalization, punctuation, and paragraphing. The minimum speed at the end of the first year should be 75 words per minute in dictation and 25 words per minute on the machine; and at the end of the second year, 100 words per minute in dictation, and 35 words per minute in transcribing notes. Thorough training should also be given in care of the machine, in modern methods of manifolding, and in filing papers.

#### HOME ECONOMICS

*Domestic Science* (1-2).—This should include a study of the elements of domestic science, cooking, foods, nutrition, and dietetics, with laboratory exercises.

*Domestic Art* (1-2).—This should include a study of the elements of domestic art, sewing, textiles, and home furnishing and decoration.

#### MANUAL TRAINING

Owing to the fact that drawing and shop work do not require outside preparation, only half units are allowed; that is, one full credit for two years of work of one period daily, or for one year of work two periods daily.

*Shop Work* (1-2).—A maximum of two units will be allowed for work in joinery, wood-turning, pattern making, cabinet-making, forge shop and machine shop.

*Mechanical Drawing* (1-2).—A maximum of two units will be allowed for work in mechanical and machine drawing.

#### AGRICULTURE

*Agriculture* (1-4).—One year in a standard high school based on text book, laboratory, and field work will be counted as one unit. A maximum of four units will be allowed for work done at any of the district agricultural schools.



## NORMAL TRAINING SUBJECTS

*Psychology (1-2).*—One-half unit will be allowed for a course based on some standard text, such as Colvin and Bagley, or Titchner.

*Education (1-2).*—One-half unit will be allowed for a course based on some standard text, such as Seeley's *School Management* or Strayer's *Brief Course in the Teaching Process*.

## FINE ARTS

*Music (1-3).*—A maximum of three units may be allowed in vocal and instrumental music to those entering the special course in music. One unit is equivalent to two lessons of thirty minutes each per week, with two hours of practice daily for one year.

*Art and Drawing (1-2).*—One unit will be allowed for five hours of work per week for one year.

## LIST OF ACCREDITED HIGH SCHOOLS

## CLASS "A"

*High schools accredited in respect of more units*

Arkadelphia	Hamburg	North Little Rock
Ashdown	Harrisburg	Osceola
Augusta	Harrison	Ozark
Batesville	Hazen	Paragould
Bentonville	Helena	Paris
Ferryville	Hope	Parkin
Blytheville	Hot Springs	Piggott
Booneville	Jonesboro	Pine Bluff
Brinkley	Lake Village	Portland
Cabot	Leslie	Prairie Grove
Camden	Lewisville	Prescott
Carlisle	Little Rock	Rogers
Clarendon	Lockesburg	Scotts
Clarksville	Lonoke	Searcy
Corning	Magnolia	Siloam Springs
Crossett	Malvern	Springdale
Danville	Mammoth Springs	Stamps
DeQueen	Mansfield	Stuttgart
Dermott	Marianna	Texarkana
El Dorado	Marvell	Van Buren
England	Mena	Waldron
Eudora	Monticello	Walnut Ridge
Fayetteville	Morrilton	Warren
Fordyce	Mountain Home	Wilmar
Forrest City	Murfreesboro	Wilmot
Fort Smith	Nashville	Wynne
Gravette	Newport	

*Accredited for entrance to the College of Agriculture*

- First District Agricultural High School, Jonesboro.  
 Second District Agricultural High School, Russellville.  
 Third District Agricultural High School, Magnolia.  
 Fourth District Agricultural High School, Monticello.

## CLASS "B"

*The college high school is accredited in thirteen or more units and two-year high schools are related to thirteen to fifteen units.*

Bearden	Junction City	Rector
Columbus	Marked Tree	Roe
Conway	Marshall	Selma
DeValls Bluff	McCrory	Star City
Gurdon	McGehee	Sulphur Rock
Heber Springs	Mulberry	Sulphur Springs
Holly Grove	Newark	West Helena

## ADMISSION TO ADVANCED STANDING

Advanced standing may be secured either by examination or by transfer of credits from another institution. In order to obtain such standing, application must be made to the Examiner within the first six weeks after which the applicant is in attendance at the University. Studies completed in another college or university will be accepted for advanced credit only when certified to by the proper officials of that institution. Certificates for this purpose should include a complete record of the courses pursued with the number of weeks and hours per week spent upon each subject.

## ADMISSION AS A SPECIAL STUDENT

A person of mature age who is not a candidate for a degree may be admitted as a special student under terms prescribed by the individual colleges. A special student is not required to meet the regular entrance requirements but must satisfy the dean of the college in which he wishes to enroll that he is capable of carrying college work. In addition, each application must have the endorsement of the instructor whose work the applicant desires to take.

*College of Arts and Sciences.* Applicants for enrollments as special students must be at least twenty years of age, except that in the Department of Fine Arts applicants may be admitted at the age of eighteen.

*College of Education.* Applicants for enrollment as special students must be at least twenty years of age.

*College of Engineering.* Applicants for enrollment as special students must be at least eighteen years of age, except that in the trade courses applicants may be admitted at the age of sixteen.

*College of Agriculture.* Applicants for enrollment as special students must be at least eighteen years of age, except that in the short courses applicants may be admitted at the age of sixteen. All applicants must have had at least two years of practical farm experience.

Special students are subject to the same regulations as other undergraduate students. They may become candidates for a degree by complying with the necessary regulations. No person will be permitted to register as a special student for more than one year without the permission of the dean of the college concerned.

Credit toward a degree shall not be allowed for any work done in the University unless the student, within two months after entering upon the work, shall have presented to and shall have had accepted by the Registrar at least the minimum number of units of high school work required for admission to the freshman class.

## FEES AND EXPENSES

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### BENEFICIARY APPOINTMENTS

The state law provides that one thousand students residing within the state may receive beneficiary appointments entitling them to free tuition. These appointments are apportioned to the various counties according to population, and are obtained from the county judge. Those who are unable to obtain appointments from the county judge may receive them from the President of the University until the number of one thousand is reached.

### FEES

All fees must be paid in advance to the Auditor at the beginning of each term. No student will be allowed to attend classes until his fees are paid.

Matriculation, student activities, and library fee (paid by all students) per term.....	\$7.00
Tuition fee (paid by all non-resident students and by others who do not hold beneficiary appointments) per term.....	4.00
Dormitory fee (paid yearly by all students living in the dormitories).....	5.00
Diploma fee (payable at graduation).....	5.00
Certificate fee (payable at graduation).....	2.50

A breakage deposit is required of all students pursuing laboratory courses, to cover the material and apparatus used and any breakage or damage. The balance of the deposit, after the necessary deductions are made, is refunded to the student at the end of the year.



## SPECIAL FEES IN THE DEPARTMENT OF FINE ARTS

Piano, or Organ, with Director, per term.....	\$22.00
Piano with Director, per month.....	7.50
Piano with Assistant, per term.....	18.50
Piano with Assistant, per month.....	6.50
Voice, Violin, per term.....	18.50
Voice, Violin, per month.....	6.50
Study of Opera Libretto, per term.....	3.50
Harmony, in class, per term.....	5.00
History of Music, in class, per term.....	5.00
Counterpoint, per term.....	5.00
Piano practice, one hour daily, per term.....	2.00
Each additional hour daily, per term.....	1.00
Diploma fee, for completion of the special Diploma course in music.....	5.00
Certificate fee, for completion of the teacher's course in music .....	2.50

## EXPENSES

The following estimates, based upon data secured from students recently in attendance, will give some idea of the cost of attending the University for a year:

	Low	Moderate	Liberal
Board, laundry, heat and light.....	\$232.00	\$270.00	\$337.00
Books, instruments, and other supplies .....	25.00	35.00	40.00
Other expenses .....	40.00	50.00	80.00
Matriculation and student ac- tivity fee .....	21.00	21.00	21.00
	<hr/> \$318.00	<hr/> \$376.00	<hr/> \$478.00

## BOARD AND ROOM

The men's dormitories provide accommodation for about two hundred and fifty students. The rooms are furnished with beds, springs, mattresses, chairs, and tables. A charge of \$5 per year for each occupant is made. The recreation rooms and parlors in Hill Hall have been reconstructed, refurnished, and made very attractive. A large store room for the men's dormitories has also been built. Board, heat, light, and laundry are provided at cost, which is about \$25 per month.

The women's dormitory provides accommodation for about one hundred students. For rooms, furnished except for linen and towels, a charge of \$3 for each occupant is made. The cost of board at the women's dormitory is about \$22.50 per month.

Reservations for rooms in any of the dormitories should be sent to the Auditor of the University not later than September 1. No reservation will be made unless the dormitory fee of \$5 has been paid.

Lodging may also be secured in private homes near the University at reasonable rates. Boarding places, other than the dormitories, must be selected from a list approved by the University authorities, and may not be changed except by consent of the Dean of Women, in the case of women, or of the President, in the case of men.

UNIVERSITY OF ARKANSAS  
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## ORGANIZATIONS AND ACTIVITIES

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### CONVOCATION

Convocation exercises for faculty and students are held in the auditorium on the first floor of University Hall at 10 o'clock on Thursday of each week. The programs consist of addresses and lectures by men in public life, discussions of University affairs and problems, and musical numbers. Attendance at convocation exercises is required of all freshmen and sophomores.

### CHRISTIAN ASSOCIATIONS

The Christian Associations stand for spiritual, mental, and physical development. Their mission is to befriend and help those who need friends and help, to apply Christian principles to college life, to train for aggressive religious work--in short, to prepare men and women to go out from the University to become religious, as well as business, social, and intellectual leaders.

The Young Men's Christian Association holds religious meetings for men on Sunday afternoons and Thursday evenings. The Young Women's Christian Association holds religious meetings for women on Sunday mornings and Thursday evenings. A series of special evangelistic meetings is held once each year. Courses in systematic Bible study and in modern missions are offered and are open to all students.

A most helpful feature of the work of the association is in their interest in new students at the opening of the college year. Students are assisted in securing desirable rooms and boarding places. A bureau of information is conducted for the benefit of all students who need assistance. Each association employs a general secretary who gives full time to the work.

The University authorities are in hearty sympathy with the organizations and do everything in their power to aid in their work.

## INTERCOLLEGIATE DEBATE

The University holds annual debates with other collegiate institutions, each school being represented by one team on the affirmative side of the question and one team on the negative. The debates are held usually during the second week of April. Each member of the intercollegiate debating teams is awarded an "A" to be worn on a fob or a pin, in recognition of his services, and is allowed four term hours credit towards a degree (see page 98, English 541).

## ATHLETICS

The Athletic Board of Control, composed of four members of the faculty and three students, has general charge of athletics. The Director of Athletics, assisted by special coaches for foot ball and base ball, has the immediate supervision of all athletic activities for men students. The director of physical training for women teaches the courses offered to women.

First and second year students who are physically able to do so are required to participate in some form of athletics with the advice and direction of the Director of Athletics. Ample equipment and facilities for teaching all forms of athletic sports usually practiced in colleges and universities are provided for the students. The games carried on at present are foot ball, base ball, basket ball, volley ball, cage ball, tennis, track, jumping, etc.

Intercollegiate contests are arranged with institutions in adjoining states. One-half of these games are played on the home grounds.

There is a spirit of rivalry in athletics between the several divisions of the student body and interesting contests are played at frequent intervals. Letters and prizes are offered for special ability shown in the athletic contests.

The University is a member of the Southwest Intercollegiate Athletic Conference, and as such is governed by the rules of the Conference in all intercollegiate athletic contests. Some of the more important rules of eligibility are:

1. Freshman students for the school year 1919-1920 will be permitted to engage in intercollegiate athletics and will be allowed four years' participation as members of intercollegiate teams.

2. No person who is not an amateur shall be allowed to represent any member of the Conference in any athletic contest.

3. A student transferring from one institution of collegiate rank to another shall not be eligible to compete in intercollegiate athletics until he has been a student for one year in the institution to which he transfers.

4. No person shall be permitted to participate in intercollegiate athletics who is not a student in good and regular standing, who is not taking at least the minimum amount of work prescribed in the regular course of study in his institution, and who is not making a passing grade in at least two-thirds of the normal amount of work prescribed.

5. No student shall be eligible to compete in intercollegiate athletics, who, during his last semester in attendance, failed to pass two-thirds of the normal work for his course.

6. If a man be dropped from an institution of the Conference on account of scholastic deficiency, he shall not be eligible to compete in athletics until he shall have completed one full year's work, passing two-thirds of the work taken.

#### ORGANIZATIONS AUXILIARY TO COURSES OF STUDY

The *American Institute of Electrical Engineers, University of Arkansas Branch*, meets regularly on the alternate Tuesdays throughout the school year, for the presentation of original papers and for discussion of the regular Institute transactions of which advance copies are received. All students interested in electrical engineering are eligible to membership.

The *American Society of Mechanical Engineers, University of Arkansas Student Section*, meets regularly on the second and fourth Mondays of the month, during the school year. The meetings are devoted to the presentation of original papers and discussion of papers selected from those regularly presented before the American Society of Mechanical Engineers, of which advance copies are received. Occasionally a lecture by some prominent engineer takes the place of the regular program.

The *Agricultural Club* meets weekly to discuss topics of practical and theoretical interest to students of agriculture and

current topics of general interest. Occasional lectures by experts in agriculture take the place of the regular programs.

The *Home Economics Club* is an organization of students who desire to promote the standards and ideals of Home Economics, and who wish to create a basis for wholesome social development.

The *Pre-Medical Club* is composed of students who are planning to take up the study of medicine. The object of the club is to aid these students in arranging their course of study and to give them an opportunity of hearing lectures on medical subjects.

#### LITERARY SOCIETIES

The *Garland-Lee*, and *Periclean* societies for men meet Saturday evenings to render programs consisting of prepared and extemporaneous debates, speeches, and readings. The *Sapphic* society for women meets on Thursday afternoons.

#### DRAMATIC CLUB

The *Black Friars* meets on alternate Tuesdays for the study of plays, classic and current, and for general information in matters pertaining to the drama and to the theatre. Two plays are produced each year. Membership in the society is limited to twenty-five.

#### GLEE CLUB

The *Glee Club* is open to all men students. Membership is determined by competition.

#### HONOR SOCIETIES

*Tau Kappa Alpha* is restricted to intercollegiate orators and debaters. The aim of the organization is to encourage and reward meritorious effort in public speaking.

*Tau Beta Pi* is restricted to engineering students. The object of the organization is to encourage scholarship and to foster liberal culture among engineering students. Eligibility to membership is based upon high scholarship and character.

*Skull and Torch* is restricted to juniors and seniors in the College of Arts and Sciences and the College of Education who



are candidates for a degree. Eligibility to membership is based upon high scholarship, participation in student activities, and personal character.

*Pi Kappa* is an honorary sorority for young women interested in journalism. Election to *Pi Kappa* comes as a reward for consistent and efficient work on University publications.

*Phi Alpha Tau* is a national honorary dramatic fraternity and eligibility to membership is based on efficient work in the field of dramatic art.

*Alpha Zeta* is restricted to upperclassmen in the College of Agriculture. Eligibility to membership is based upon high scholarship and character.

*Pi Delta Epsilon* is restricted to upperclassmen. The purpose of the organization is to promote the interests of college journalism by making membership conditional upon faithful and efficient service on college publications.

*Scabbard and Blade* is restricted to cadet officers. Eligibility to membership is based upon efficiency, personal character and influence, and interest in military affairs.

#### STUDENT PUBLICATIONS

*The University Weekly* is devoted to current events and matters of interest to the University as a whole.

*The Arkansan* is a literary magazine, published monthly during the school year.

*The Razorback* is published annually by the junior class. It contains pictures of individuals, classes, and organizations and serves as a history of the school year.

## HONORS, SCHOLARSHIPS, AND PRIZES

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### SCHOLARSHIPS

*Women's Club Scholarships.* The Federation of Women's Clubs of Arkansas offers two annual scholarships, one for men and one for women. Appointment to the scholarships is determined by competitive examinations held in June of each year by the county examiner or county superintendent under the direction of University authorities. Candidates must stand examination in fifteen units of high school work including those units prescribed for entrance to the University. Persons who wish to take the examinations should notify the President of the University before May 1 so that examinations in the desired subjects may be forwarded to the examiner or superintendent in good season. Graduates of the high schools of Little Rock, Fort Smith, Helena, Texarkana, Pine Bluff, and Hot Springs are not eligible. The scholarships pay \$140 and \$145 respectively.

*Daughters of the Confederacy Scholarship.* The Daughters of the Confederacy of Arkansas has provided one scholarship.

*Elks' Scholarship.* The Benevolent and Protective Order of Elks has provided a scholarship to be awarded by the Federation of Women's Clubs. Correspondence should be addressed to Mrs. Edwin Bevins, Helena, Arkansas.

*University Scholarships.* The Board of Trustees has provided one scholarship annually to be awarded to the honor graduate of each fully accredited public high school within the state. In case the high school does not select any member of the graduating class as the honor graduate, the scholarship shall be awarded to the student who has made the highest average in his studies for the entire high school course. The scholarship grants exemption from the payment of matriculation, student activities, and library fees.

## HONORS

By a system of departmental, class, and graduation honors, the University gives official recognition of attainments in scholarship.

*Departmental Honors.* To be eligible for departmental honors a student must have passed in at least twenty-seven term hours in the department with a grade of "A." From the students who are eligible for honors in a department, the teaching force of the department shall select the first and second. As a basis for this selection, all of the work done in the department, and general class standing, if necessary, shall be considered.

*Class Honors.* Any student who passes in at least twenty-four hours of collegiate work and receives a grade of "A" in not less than eighteen hours and ranks not less than "C" in any course shall receive class honors.

*Honors at Graduation.* Any student who makes class honors in both his junior and senior years shall be termed an honor graduate.

All honors shall be published at commencement, and in the catalog for the following year.

All students who are honor graduates shall have the fact noted in their diplomas.

## PRIZES

*William Jennings Bryan Prize.* Hon. William Jennings Bryan has given to the University the sum of \$250, the interest on which is offered annually as a prize for the best essay on some topic relating to the problems of government. The contest is open to juniors and seniors. Further information may be obtained from the professor of economics and sociology.

*Troy W. and Jessie Lewis Economic Essay Prize.* Mr. Troy W. Lewis, of Little Rock, offers annually a prize of \$10 to the member of the senior class who writes and submits the best essay on some economic subject.

*Chi Omega Prize.* The Chi Omega sorority offers at each institution at which it has a chapter an annual prize of \$15 for

the best essay on some topic connected with the study of sociology. The contest is open to all women of the University who are pursuing courses in economics or sociology.

*Brough Debating Medal.* Governor Charles Hillman Brough, formerly head of the Department of Economics and Sociology at the University, offers a medal of the value of \$20 or a cash prize of \$20, for excellence in debate, to be contested for by two representatives of each of the literary societies. Under the conditions of the award, two debates must be held during the year, one formal, in which the speeches are prepared, valued at sixty per cent, and one informal, in which the speeches are extemporaneous, valued at forty per cent. These debates are designed to train students in the art of forensic speaking and to promote a friendly rivalry between the literary societies.

*Arkansas Engineering Society Prize.* The Arkansas Engineering Society offers a prize not to exceed \$25 for the best thesis submitted by a member of the senior class in the College of Engineering.

## RULES AND REGULATIONS

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Each student at the time of registration is given a copy of the rules and regulations for undergraduate students for the observance of which he will be held strictly responsible.

### GOVERNMENT

The government of the University is vested primarily in a Board of Trustees, consisting of the Governor of the State and the State Superintendent of Public Instruction, as ex-officio members, and seven other members, appointed by the Governor for a term of six years.

The administration of the University is vested in the President, the University Council, the University Senate, and the **faculties and deans of the various colleges.**

The President is the administrative head of the University. The University Council is composed of the President, the deans of the several colleges, and four other members, appointed by the President. The Council is the central executive body of the **University and is advisory to the President.**

The University Senate is composed of the President, the Registrar, the deans, and all heads of departments and professors. The Senate is the general legislative body of the University.

The faculty of each college within the University has jurisdiction, subject to higher University authority, over all matters **that concern exclusively that college.**

The dean of each college is responsible for the carrying out of all University regulations within his college. The Dean of Women acts as an adviser to women undergraduate students and is charged with the general care and conduct of these students.

### DISCIPLINE AND ATTENDANCE

Students are required to be diligent in the pursual of their studies and regular in their attendance at class. Those who fail to meet these requirements will be requested to withdraw.

Students are required to attend all meetings and examinations of courses for which they are registered. For each eleven credit hour absences the student shall be required to complete **one extra hour for graduation.**

Absences with athletic teams, debating teams, or other organizations which leave the University on official work, and absences of individuals who are permitted by the President to leave the University on official business pertaining to the University or some organization thereof shall count at half rate, provided the coach, manager, or other person in charge files with the University Examiner, before leaving the University, a certificate, upon a form prescribed by the University, for each student who proposes to make the trip.

Absences of one full day or more due to sickness of the student or of a member of his immediate family, or to death in the student's immediate family shall count at half rate, provided the student files in the office of the University Examiner, not later than one week after his return to classes, upon a form prescribed by the University, a statement of the cause of his absence verified by the certificate of the attending physician. Such certificate forms may be obtained from the office of the **University Examiner.**

Students incurring absences in accordance with the above regulations, may have the privilege of making up the lost recitations, as evidenced by turning in written work, or in some other manner satisfactory to the instructor concerned. When such lost recitations have been made up the remaining absences shall be removed. Applications for the privilege of making up absences must be made to the University Examiner *within one week* from the time of return to the University.

Each absence on the first day of any term, or on the day cross first or following any holiday, shall count as four, unless the student shall file with the University Examiner, a statement showing that such absence was caused by illness, death in the family, or some other cause which the University Examiner may deem adequate.

The University Examiner shall, at any time he may deem advisable, report to the Committee on Attendance and Discipline,



any student who absents himself from his University duties without good reason.

A student who is absent from an examination must explain his absence to the Examiner within a time set by the Examiner. Failing to do so he will be given a grade of "F" in the course.

In accordance with state law, all students, members of the faculty, and employes of the University are required to present certificates of successful vaccination. Students who fail to present certificates will not be allowed to attend classes.

#### REGISTRATION

Students are required to matriculate and classify before the beginning of each term. Those who enter a course late will be held accountable for all meetings of the course previous to their entrance.

#### STUDENTS' WORK

A student in his first term at the University, unless he is registered in a class higher than the freshman, shall not be permitted to carry a greater number of hours than the normal number required in his course, provided that the dean of the college concerned may at his discretion allow such a student to carry one hour more than the maximum prescribed. Students who have done work of an exceptionally high grade in the high school may be exempted from the operation of this rule by permission of the dean of the college concerned.

A freshman student who enters conditionally shall not be allowed to carry more than the normal number of hours required in his course. In computing this there shall be reckoned the work that he is doing to make up entrance conditions.

A student who has failed in any subject (not including physical education and military art) in any term shall not be allowed the next following term to carry more than the normal number of hours required in his course.

The dean of the college in which a student is enrolled may at his discretion limit the number of hours that the student shall be allowed to carry.

A student may enroll in two classes where a conflict occurs only by permission of the dean of the college and of the heads of the departments concerned. In no such case shall a student be allowed to lose more than one third of the time devoted to recitation in either class. The student shall be charged with all absences incurred through such conflict.

#### GRADING AND EXAMINATIONS

The following grading system went into effect September 1, 1976. A, B, C, D (passing grades), E (conditional failure), F (absolute failure). A student receiving a grade of "E" may remove it by an examination. A student receiving a grade of "F" shall not receive credit for the course except by repeating it in class. A student receiving a grade of "D" in any subject shall have an opportunity to raise this grade by standing an examination. Should he elect to take such examination the grade made upon the examination shall become a part of his permanent record in place of the first grade made.

Examinations to raise the grade "D" or to remove the grade "E" shall be given on Monday and Tuesday of registration week in the student's next succeeding college year. In the case of seniors applying for graduation, a re-examination either to remove the grade "E" or to raise the grade "D" may be given in the same year prior to commencement at a time set by the Examiner.

Seniors applying for graduation and carrying the requisite work to entitle them to graduation, may, upon the recommendation of the instructors concerned, be excused from final examinations in each course in which their grade is as high as "B." Notices of exemption are sent by the Examiner near the end of the term.

If for any reason a student drops a course after the sixth week of the term, and if the student's work during the time that he attended the course was below the grade of "D" there shall be entered on his record a grade of "F" in that course; if "D" or above, he shall be marked "Excused" in that course.

## REQUIREMENTS FOR GRADUATION

No student shall be graduated from any division of the University who has a failing grade on his record which has not been satisfactorily repeated in class, removed by examination, or excused by the faculty of the college concerned.

No student shall be allowed to graduate from any division of the University if more than twenty-five per cent of his work is of the "D" grade.

In addition to completing the prescribed course of study, candidates for a degree are required to do at least the work of the senior year in residence.

# COLLEGE OF ARTS AND SCIENCES

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The object of the courses offered in the College of Arts and Sciences is to cover the broad field of general university study, including ancient and modern languages and literature, history and the social sciences, mathematics, the natural sciences, and the fine arts. It aims to afford the student an opportunity to gain a broad, cultural education, as well as to equip himself for further study in more technical fields.

## ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance see page 33.

## GRADE POINTS

Grade points are awarded on the following basis:

For grade A, 6 points for each hour.

For grade B, 4 points for each hour.

For grade C, 2 points for each hour.

For grade D, credit but no points.

For grade E, 1 negative point for each hour.

For grade F, 2 negative points for each hour.

Twice as many points will be required for graduation as term hours credit. If additional work is required for any cause, additional grade points will be required at the rate of two points for each term hour.

No change in grade points will be allowed unless the subject be repeated in class.

In case of exemption from final examination, grade points will be granted as for a grade of "B."

## COURSES OF STUDY

The College of Arts and Sciences offers four-year courses leading to the degrees of *Bachelor of Arts* (B. A.), and *Bachelor of Science in Chemistry* (B. S. C.); a graduate course leading to the degree of *Master of Arts*; and special courses in music leading to a certificate or diploma.

Candidates for the degree of Bachelor of Arts, who wish to teach in the schools of any state which requires professional preparation of its teachers, should take as part of their elective work the courses mentioned on page 138. They will then receive both the degree of Bachelor of Arts and the teacher's certificate, which will entitle them to teach in any school in the state without being required to pass examinations for a teacher's license.

### *REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS*

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily at least two hundred one term hours in approved courses, to be chosen with the following restrictions:

1. Prescribed courses as follows: English 141 (142) (143), nine hours; Military Art, nine hours (for men), or Physical Education, six hours (for women).

2. Elective courses to be chosen from the following groups with the restrictions noted below:

Group 1: English, French, German, Greek, Italian, Latin, and Spanish.

Group 2: Astronomy, Biology, Chemistry, Geology, Mathematics, and Physics.

Group 3: Economics, Education, History, Philosophy, Political Science, and Sociology.

Group 4: Agriculture, Engineering, Fine Arts, Home Economics, Law, Medicine, and Stenography.

a. The candidate may elect not more than sixty hours in any one subject, and not more than one hundred twenty hours from any one group. At least twenty-seven hours must be elected from each of groups 1, 2, and 3, (provided that at least twenty-seven hours exclusive of any course or courses offered from the College of Education must be elected from group 3), and not more than twenty-seven may be elected from group 4. A maximum of thirty-six term hours may be offered from the College of Education toward the degree of Bachelor of Arts.

b. The candidate must select, not earlier than the beginning of his sophomore year and not later than the beginning of his

junior year, one major subject, to be chosen from group 1, 2, or 3, in which he must complete not less than forty-five hours, and two minor subjects, in which he must complete not less than twenty seven and eighteen hours, respectively, subject to the approval of the candidate's major professor and the dean of the college. A description of the major requirements of each department will be found under the departmental statements.

c. The candidate will be required to complete, in the combined high school and college courses, at least thirty hours of one foreign language, at least nine hours of which must be taken in college classes. In computing the total, each unit of high school work shall count as equivalent to six hours of college work. The student shall continue his language study until this requirement is satisfied, which in the case of a modern language means a satisfactory working knowledge of that language.

d. The candidate must conform as closely as possible to the following schedule in the distribution of his work.

### *Freshman Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 141, 142, 143.....	4	4	4
Military Art 111, 112, 113, (or)			
Physical Education 111, 112, 113...	1	1	1
Elective .....	11	11	11
	16	16	16

### *Sophomore Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Military Art 221, 222, 223, (or)			
Physical Education 211, 212, 213	2 or 1	2 or 1	2 or 1
*Elective .....	15 or 16	15 or 16	15 or 16
	17	17	17

### *Junior Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
*Elective .....	17	17	17

### *Senior Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
*Elective .....	17	17	17

\*To be chosen with the advice and consent of the candidate's major professor so as to meet the group requirements outlined above.



## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

The candidate must meet the entrance, residence, and registration requirements and must complete at least two hundred and four credit hours in approved courses as prescribed below:

### *Freshman Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141, 142, 143.....	4	4	4
Physics 141, 142, 143.....	4	4	4
English 131, 132, 133.....	3	3	3
Mathematics 154, 155, 156.....	5	5	5
Military Art 111, 112, 113.....	1	1	1
	17	17	17

### *Sophomore Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 251, 254, 255.....	5	5	5
Physics 244, 245, 246.....	4	4	4
Mathematics 234, 235, 236.....	3	3	3
German 131, 132, 133.....	3	3	3
Military Art 221, 222, 223....	2	2	2
	17	17	17

### *Junior Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 354, 355, 359.....	5	5	5
Biology 141, 142, 143.....	4	4	4
German 231, 232, 233.....	3	3	3
*Elective .....	5	5	5
	17	17	17

### *Senior Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 434, 435, 436.....	3	3	3
Chemistry 451, 452.....	5	5	
Geology 141, 142, 143.....	4	4	4
*Elective .....	5	5	10
	17	17	17

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\*To be chosen with the advice and consent of the candidate's major professor.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

The degree of Master of Arts is granted for graduate work based upon an undergraduate course of four years with the degree of *Bachelor of Arts* completed at this University or another college or university of equal standing. Before a student may become a candidate for the degree, however, his petition for admission to graduate standing must have the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the degree is one academic year. In individual cases, where the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses. The major subject, including with the thesis, at least twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be ones in which he has received credit in his undergraduate course for at least eighteen credit hours each. The choice of the candidate's major and minors is subject to the approval of the committee, the dean of the college, and the major professor.

3. Forty-two of the forty-eight hours required of the candidate must be regular class-room work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided that their undergraduate records are satisfactory to the committee and to the dean of the college.

4. A student may be admitted to graduate standing without becoming a candidate for a degree by permission of the committee and the dean of the college.

## SPECIAL COURSES IN THE DEPARTMENT OF FINE ARTS

The Department of Fine Arts offers special courses, the completion of which is attested by a diploma or a certificate. The

purpose of these courses is to give opportunity to persons who do not desire to become candidates for a degree, but wish to do special work in music, together with a small amount of work in courses of a general cultural nature, in preparation for teaching or as a basis for further study.

Candidates for a certificate in piano or in voice must meet the residence and registration requirements and must complete satisfactorily the following course of study.

### *First Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Theory of Music 111, 112, 113.....	1	1	1
Theory of Music 114, 115, 116.....	1	1	1
Theory of Music 117, 118, 119.....	1	1	1
*Piano, Violin or Voice.....			
Physical Education 111, 112, 113 . . . . .	1	1	1

### *Second Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Theory of Music 211, 212, 213.....	1	1	1
Theory of Music 117, 118, 119.....	1	1	1
*Piano, Violin or Voice.....			
Physical Education 211, 212, 213.....	1	1	1

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\*In instrumental and vocal music no definite number of hours can be stated; the applicant must show the attainment of sufficient knowledge, technique, and ability before a certificate will be granted.

Candidates for a diploma in music must meet the entrance, residence, and registration requirements, and must complete satisfactorily the following courses of study. Students who receive this diploma must show evidence of four years of college training in music.

### *First Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 141, 142, 143.....	4	4	4
Foreign Language .....	3-5	3-5	3-5
History or Economics.....	3-5	3-5	3-5
Theory of Music 111, 112, 113.....	1	1	1
Theory of Music 114, 115, 116.....	1	1	1
Theory of Music 117, 118, 119.....	1	1	1
*Piano, Violin or Voice.....			
Physical Education 111, 112, 113.....	1	1	1
	<u>16</u>	<u>16</u>	<u>16</u>

*Second Year*

	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 542, 543, 544.....	4	4	4
Foreign Language.....	3-5	3-5	3-5
Theory of Music 211, 212, 213.....	1	1	1
*Piano, Violin or Voice.....	1	1	1
Physical Education 211, 212, 213.....	1	1	1
	<u>17</u>	<u>17</u>	<u>17</u>

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\*In instrumental and vocal music no definite number of hours can be stated; the applicant must show the attainment of sufficient knowledge, technique, and ability before a diploma will be granted. In general, this will require from four to six years of study. In addition to the study of the major instrument the candidate will be required to spend at least one year in the study of some other instrument or of voice subject to the approval of the head of the department.

## DEPARTMENTAL STATEMENTS

## SYMBOLS

The numbers of courses which are taken to remedy entrance deficiencies contain two digits only, the first of which shows the number of hours credit per week and the second distinguishes the course.

The numbers of the regular college courses contain three digits; the first indicates the college year, the second digit, the number of hours credit per week; the third digit, the particular course.

These numbers are distributed as follows:

101 to 199—Courses which are open to freshmen.

201 to 299—Courses which are required of sophomores in one or more of the colleges, or elective for sophomores, juniors, or seniors.

301 to 399—Courses which are required of juniors in one or more of the colleges, or elective for juniors and seniors.

401 to 499—Courses which are required of seniors in one or more of the colleges, or elective for seniors.

501 up —Open electives for sophomores, juniors and seniors.

Courses with double or triple numbers, as English 131 (132) (133), run through two or three terms, respectively, and credit will not be allowed until the final term's work is completed.

Courses indicated by a star (\*) may be elected by graduate students for credit towards an advanced degree.

## CREDIT HOURS

The number of term credit hours allowed in each course is identical with the number of hours per week spent upon that course, except that in laboratory, shop or field work two to three hours will be considered equivalent to one hour of lecture or recitation.

## ANCIENT LANGUAGES

PROFESSOR STRAUSS, ASSISTANT PROFESSOR HANCOCK

*Requirements for a Major in Latin or ancient languages.* forty five credit hours. Students who expect to teach Latin in secondary schools should complete courses 147, 148, 149 and at least nine hours of more advanced work.

## COURSES

			Latin		Credit	Prerequisites
No.	Title					
111 (112) (113)	Latin and Greek					
	Word-Roots in English.....		3		†	
141 (142) (143)	Cicero's Speeches and Letters.....		12		†	
144 (145) (146)	Vergil's Aeneid .....		12		†	
147	Cicero's Essays .....		4		†	
148	Selections from Livy.....		4		†	
149	Latin Comedy .....		4		†	
531	Cicero's Letters .....		3			147-9
532	Juvenal and Martial.....		3			147-9
533	Pliny's Letters .....		3			147-9
511 (512) (513)	Advanced Latin Composition.....		3			147-9
534 (535) (536)	Roman Poetry .....		9			531-3
537	History of Roman Literature.....		3		†	
538	Greek and Roman Mythology.....		3		†	
Greek						
131 (132)	Elementary Greek .....		6			None
143	Xenophon .....		4			131-2
541	Homer .....		4			143
542	Plato .....		4			143
543 (544)	Greek Literature in Translation.....		8(or 4)		†	

†See statement.

## LATIN

111 (112) (113). LATIN AND GREEK WORD ROOTS IN ENGLISH.—This course requires no knowledge of the Greek language and but one year of Latin. Gives a working knowledge of the common roots used in the formation of English words, both technical and general. Designed especially for students of science who do not continue their Latin. One hour a week.

ASSISTANT PROFESSOR HANCOCK.

141 (142) (143). CICERO'S SPEECHES AND LETTERS.—Six speeches and selections from the letters; a review of forms and syntax; an introduction to the use of good English in translation. For students who offer only two units in Latin for entrance. Four hours a week.

ASSISTANT PROFESSOR HANCOCK.



144 (145) (146). VERGIL'S AENEID.—Due attention will be given to forms, syntax, and prosody, but the chief aim will be to enable the student to arrive at an appreciation of the poem as literature. For students who offer three units in Latin for entrance. Four hours a week.

PROFESSOR STRAUSS.

147. CICERO'S ESSAYS.—A study of the *De Amicitia*, with a thorough review of forms and syntax at the beginning of the course.

148. LIVY.—Selections from Livy, Books XXI-XXII.

149. LATIN COMEDY.—The *Phormio* of Terence.

These courses, in any order, are open to those who have had four units of Latin. Four hours a week.

PROFESSOR STRAUSS

ASSISTANT PROFESSOR HANCOCK.

531. CICERO.—Selections from the Letters.

PROFESSOR STRAUSS.

532. JUVENAL AND MARTIAL.—Juvenal's Satires; Martial's Epigrams.

ASSISTANT PROFESSOR HANCOCK.

533. PLINY.—Selections from the Letters.

ASSISTANT PROFESSOR HANCOCK.

The incidental object of courses 531-533 is to acquaint the student with Roman public and private life. Three hours a week.

511 (512) (513). ADVANCED LATIN COMPOSITION.—Translation of English narrative and study of Latin idioms. This course is essential for students who are preparing to teach Latin. One hour a week.

PROFESSOR STRAUSS.

534 (535) (536). ROMAN POETRY.—Reading of selections from Roman poets. An attempt will be made to secure for the student a good general view of the whole field of Roman poetry. Three hours a week.

PROFESSOR STRAUSS.

537. HISTORY OF ROMAN LITERATURE.—Mackail's Latin Literature, supplemented by lectures and assigned reading in English

translations of the more important authors. Three hours a week.

PROFESSOR STRAUSS.

538. GREEK AND ROMAN MYTHOLOGY; ITS USE IN ENGLISH LITERATURE.—A systematic literary study of the myths that underlie all literature. Each student will follow a particular myth through English literature. Those having a knowledge of Latin will be given Latin sources to investigate. Three hours a week.

PROFESSOR STRAUSS.

NOTE—Courses 537 and 538 presuppose no knowledge of Latin.

#### GREEK

131 (132). ELEMENTARY GREEK.—Assuming on the part of the student a fair knowledge of Latin grammar, the essentials of Greek form and syntax are given rapidly, with much illustrative reading and comparatively little drill. A course designed for students who offer no Greek for entrance and who wish to begin a study of the language. Three hours a week.

ASSISTANT PROFESSOR HANCOCK.

143. XENOPHON.—Selections from *Anabasis*, *Cyropedia*, and *Memorabilia*; practical review of syntax, some prose composition and sight reading. Four hours a week.

ASSISTANT PROFESSOR HANCOCK.

541. HOMER.—Selections from the *Iliad*. Syntax, prosody, and dialect will be taught as incidental to the literary qualities of the poem. Four hours a week.

ASSISTANT PROFESSOR HANCOCK.

542. PLATO—The *Apology* and *Crito*; prose composition and sight reading. Four hours a week.

PROFESSOR STRAUSS.

543 (544). GREEK LITERATURE IN TRANSLATION.—The aim of this course is to give students of any literature a knowledge of the form and content of the literature that has influenced most widely all others. In the first quarter epic and lyric poetry will be studied; in the second, prose and drama. Lectures, class reading, collateral reading, and frequent tests. Four hours a week.

ASSISTANT PROFESSOR HANCOCK.

## BIOLOGY

PROFESSOR PICKEL, ASSISTANT PROFESSOR WELLS

The botanical courses in addition to their cultural value all have a highly significant place in connection with the intensely practical problems of food production. Emphasis is laid throughout on the economic aspect of the material and data studied.

*Requirements for a Major in Botany*, forty-five hours which must include courses 141 (142) (143), 251, 552, 242, and Plant Pathology 452.

*Requirements for a Major in Zoology*, forty-five credit hours, to include courses 141 (142) (143), 144 (145) (146), 241 (242) (243), 541 (542) (543), 552, 453, 551. Students preparing to study medicine are advised to elect courses 141 (142) (143), 144 (145) (146), 551, 541 (542) (543), 552, 453, and 241 (242) (243). Students who expect to teach zoology in secondary schools should take courses 141 (142) (143), 144 (145) (146), 241 (242) (243), and 533.

## COURSES

## Botany

No.	Title	Credit	Prerequisites
141	Elementary Botany .....	4	None
142	Elementary Botany .....	4	None
143	Elementary Botany .....	4	None
*251	Advanced Morphology ....	5	141, 142, 143
551	Plant Microtechnique .....	5	141, 142, 143
*552	Systematic Botany .....	5	141, 142
242	Plant Physiology .....	4	141, 142, 143
341	Genetics .....	4	141, 142, 143
*553	Cytology .....	5	141, 142, 143

## Zoology

141 (142) (143)	General Biology .....	12	None
151	General Bacteriology .....	5	141 (142) (143), Chem. 141 (142) (143)
144 (145) (146)	General Zoology .....	12	None
*552	Animal Histology .....	5	141 (142) (143), 144 (145) (146)
*453	Embryology .....	5	141 (142) (143), 144 (145) (146)
*541 (542) (543)	Comparative Anatomy ....	12	141 (142) (143), 144 (145) (146)
241 (242) (243)	Physiology .....	12	None
331	General Hygiene .....	3	None
532	Theoretical Biology .....	3	None
533	The Teaching of Zoology	3	141 (142) (143), 144 (145) (146), 241 (242) (243)
311 (312) (313)	Zoological Seminar .....	1	None

\*See page 72.

## BOTANY

141. **ELEMENTARY BOTANY. NATURE OF THE HIGHER PLANT (SPERMATOPHYTE).**—A course dealing with the fundamental morphological and physiological facts pertaining to the flowering plant (Angiosperm). A basis is laid for interpreting the nature of the crop plant. Required of all Agricultural students; elective for Arts students. Lectures and recitations two hours, laboratory practice four hours a week. **Fall term.**

**ASSISTANT PROFESSOR WELLS.**

142. **ELEMENTARY BOTANY. LOWER PLANTS (THALLOPHYTES).**—A course presenting the life histories of the lower plants (Thallophytes) from the standpoint of evolution. Especial emphasis is laid on the disease producing fungi. Required of all Agricultural students; elective for Arts students. Lectures and recitations two hours, laboratory practice four hours a week. **Winter term.**

**ASSISTANT PROFESSOR WELLS.**

143. **ELEMENTARY BOTANY. EVOLUTION OF LAND PLANTS.**—A course presenting the probable evolution of the green land plants as indicated by a comparative morphological study of the types. The plant life in the vicinity of Fayetteville is exceptionally satisfactory as a source of illustrative material. The student is urged to accompany the Saturday Field Excursion party; this, however is not required. Required of all Agricultural students; elective for Arts students. Lectures and recitations two hours, laboratory practice four hours a week. **Spring term.**

**ASSISTANT PROFESSOR WELLS.**

251. **ADVANCED MORPHOLOGY OF PTERIDOPHYTES AND SPERMATOPHYTES.** This course offers the advanced student an opportunity to acquaint himself with the details of the morphology of the higher plants. Emphasis is laid throughout on the evolution of the groups as discovered through comparative morphological data. Lectures and recitations two hours, laboratory practice six hours a week. **Fall term.**

**ASSISTANT PROFESSOR WELLS.**

551. PLANT MICROTECHNIQUE.—Practice in the various methods of preparing plant material for microscopic examination. Laboratory practice six to ten hours a week. Winter term.

ASSISTANT PROFESSOR WELLS.

552. SYSTEMATIC BOTANY.—The identification and classification of cultivated and wild plants in the vicinity of Fayetteville. Correlation of the plant groups from an evolutionary standpoint is also attempted. Attention might be called to the fact that the Ozark region is an exceptionally fine one for a course of this character. Lecture one hour, laboratory practice eight hours a week. Spring term. All of Saturday should be reserved for field excursions.

ASSISTANT PROFESSOR WELLS.

242. PLANT PHYSIOLOGY.—In this course the student performs a series of experiments on plants which are designed to make clear to him in both a qualitative and quantitative sense the salient functions. Laboratory practice eight hours a week. Fall term.

ASSISTANT PROFESSOR WELLS.

341. GENETICS.—The presentation of the facts of inheritance and the theories dealing with these facts. Attention is also given to the hypotheses concerned with the problems of evolution. This course is required of all junior Agricultural students; elective for Arts students. Lectures and recitations three hours, laboratory practice two hours a week. Winter term.

ASSISTANT PROFESSOR WELLS.

553. CYTOLOGY.—A course presenting the facts concerning the cell and the behavior of its component parts during division. The theories attempting to correlate the facts of Mendelian inheritance with cell conditions, are also presented. Lectures and recitations two hours, laboratory practice six hours a week. Spring term.

ASSISTANT PROFESSOR WELLS.

#### ZOOLOGY

141 (142) (143). GENERAL BIOLOGY.—An introduction to the field of biological science with a study of structure, functions, be-

havior, and life history of organisms from the plant and the animal kingdom. Lectures and recitations two hours, laboratory practice four hours a week.

PROFESSOR PICKEL.

551. GENERAL BACTERIOLOGY.—A study of the structure, growth and classification of bacteria, contamination of drinking water, bacteria in air, soil and milk, pathogenic forms and their relation to disease. Lectures and recitations two hours, laboratory practice six hours a week.

PROFESSOR PICKEL.

144 (145) (146). GENERAL ZOOLOGY.—A general course treating of the fundamental facts of zoological science and the laws of development, heredity, variation, and correlation. Field work on local fauna. Lectures and recitations two hours, laboratory practice and field work four hours a week.

PROFESSOR PICKEL.

541 (542) (543). COMPARATIVE ANATOMY OF VETEBRATES.—An advanced study of the structure and classification of vertebrates. Lectures and recitations two hours, laboratory practice four hours a week.

PROFESSOR PICKEL.

552. ANIMAL HISTOLOGY.—Instruction in histological methods of technique. Human tissue is used where possible. Designed primarily for students who expect to study medicine. Lectures and recitations two hours, laboratory practice six hours a week.

PROFESSOR PICKEL.

453. EMBRYOLOGY.—Study of vertebrate embryology with regard to organogeny in the chick, pig, and man. Lectures and recitations two hours, laboratory practice six hours a week.

PROFESSOR PICKEL.

241 (242) (243). PHYSIOLOGY.—A study of the physiology and hygiene of the human body. A knowledge of elementary physiology is required. Lectures and recitations two hours, laboratory practice four hours a week.

PROFESSOR PICKEL.



331. GENERAL HYGIENE.—A treatment of personal and public hygiene from a general rather than a technical standpoint. Lectures and assigned readings three hours a week.

PROFESSOR PICKEL.

532. THEORETICAL BIOLOGY.—A study of variation, selection, evolution, heredity, and some of the broader and general problems of biology. Lectures and recitations three hours a week.

PROFESSOR PICKEL.

533. THE TEACHING OF ZOOLOGY.—A study of the selection of courses, methods of instruction, collecting and preserving laboratory material, laboratory equipment and management, and a comparison of text books. Designed for prospective high school teachers. Lectures and recitations three hours a week.

PROFESSOR PICKEL.

311 (312) (313). ZOOLOGICAL SEMINAR. Discussion of articles in zoological magazines. One hour.

PROFESSOR PICKEL.

## CHEMISTRY

PROFESSOR HALL, \*ASSOCIATE PROFESSOR MORROW, MR. TRIMBLE, MR. HUMPHREYS, MRS. WELLS.

The courses in chemistry are planned to meet the needs of students who (1) wish the science for its cultural value, (2) need it as a foundation for work in other sciences, (3) are majoring in chemistry or studying chemical engineering.

*Requirements for a Major in Chemistry*, forty-five term hours, which should include courses 141, (142) (143), 251, 255, 354, and (355).

The department of chemistry offers a special course leading to the degree Bachelor of Science in Chemistry (see page 68.), which may be pursued as a preparation for the study of medicine, or for technical work in chemistry, or as a basis for

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\*Absent on leave.

graduate study in chemistry. In conjunction with the College of Engineering, there is also offered a course leading to the degree of Bachelor of Chemical Engineering.

## COURSES

No.	Title	Credit	Prerequisites
141 (142) (143)	General Chemistry	12	None
242	Elementary Organic Chemistry	4	143
251, 241, 241	Qualitative Analysis	5, 4, or 3	143
232	Advanced Qualitative Analysis	3	251 or 241
254, 244, 234	Quantitative Analysis	5, 4, or 3	251 or 241
255	Advanced Quantitative Analysis	5	254
247	Food Analysis	4	251 or 241
354 (355)	Organic Chemistry	10	251 or 241
354	Industrial Chemistry	5	254, 354
*451 (452)	Physical Chemistry	10	255 Physics 143
*434	History of Chemistry	3	255, 355
*435 (436)	Advanced Inorganic Chemistry	6	255, 355
*457	Advanced Organic Chemistry	5	355
*458	Advanced Organic Chemistry..	5	457
521	American Chemistry	2	143
542	Spectroscopic Analysis	3	251 or 241
533	Metallurgy	3	251 or 241
631-639	Special Methods in Quantitative Analysis including Sanitary Water Analysis, Electro Analysis, Ultimate Organic Analysis, Coal and Coke Analysis, Analysis of Road Materials, etc. Gas Analysis..	†	251 or 241
*831	Research	†	
806	Journal Meetings	†	

†See statement.

\*See page 72.

141 (142) (143) GENERAL CHEMISTRY.—An elementary course with a two-fold object. First, to give to the student a thorough general knowledge of the principles of chemistry; second, to make chemistry a subject of interest and value, touching closely everyday life. Lectures, demonstrations and recitations three hours, laboratory practice three hours a week.

PROFESSOR HALE, MR. HUMPHREYS, MRS. WELLS.

242. ELEMENTARY ORGANIC CHEMISTRY.—An introductory course, designed especially for students in Home Economics and in the College of Agriculture. Lectures and recitations three hours, laboratory practice three hours a week.

MR. HUMPHREYS.

251. QUALITATIVE ANALYSIS.—A practical course in qualitative analysis with lectures dealing with the theories involved. Lectures and recitations two hours, laboratory practice nine hours a week.

MR. TRIMBLE.

241. QUALITATIVE ANALYSIS.—A similar course with lectures and recitations two hours, laboratory practice six hours a week.

MR. TRIMBLE.

231. QUALITATIVE ANALYSIS.—A shorter course with one hour lecture and recitation, laboratory practice six hours a week.

Students in chemistry majors or in chemical engineering take 251.

MR. TRIMBLE.

232. ADVANCED QUALITATIVE ANALYSIS.—A continuation of 251 with lecture and recitation one hour, laboratory practice six hours a week.

MR. TRIMBLE.

254. QUANTITATIVE ANALYSIS.—Lectures on the theory and practice of the subject, the more important methods of gravimetric and volumetric analysis being studied. Lectures and recitations two hours, laboratory practice nine hours a week.

MR. TRIMBLE.

244. QUANTITATIVE ANALYSIS.—A similar course with lectures and recitations two hours, laboratory practice six hours a week.

MR. TRIMBLE.

234. QUANTITATIVE ANALYSIS.—A shorter course with lecture and recitation one hour, laboratory practice six hours a week.

MR. TRIMBLE.

255. ADVANCED QUANTITATIVE ANALYSIS.—A continuation of 254 with similar hours.

MR. TRIMBLE.

247. FOOD ANALYSIS.—A study of the general methods of quantitative analysis with special reference to foods, arranged

for students in home economics. Lectures and recitations two hours, laboratory practice six hours a week.

PROFESSOR HALE, MR. HUMPHREYS.

354 (355). ORGANIC CHEMISTRY.—A thorough study of the fundamental principles of organic chemistry with laboratory work illustrating these. Lectures and recitations three hours laboratory practice six hours a week.

ASSOCIATE PROFESSOR MORROW.

379. INDUSTRIAL CHEMISTRY. A study of the practical application of chemistry to industry, special attention being given to actual or possible manufacturing establishments in this state.

One or more inspection trips will be taken. Lectures and recitations five hours a week.

PROFESSOR HALE.

451 (452). PHYSICAL CHEMISTRY.—A study of the general principles of natural science with especial reference to the principles, theories and generalizations of chemistry. The method of attacking a problem, the apparatus used, and a study of certain fundamental principles are covered in the laboratory work. Lectures and recitations three hours, laboratory practice six hours a week.

MR. TRIMBLE.

434. HISTORY OF CHEMISTRY.—A careful study of the development of chemistry, intended to furnish a helpful basis for the present day science. Lectures and recitations three hours a week.

PROFESSOR HALE.

457. ADVANCED ORGANIC CHEMISTRY.—A more thorough study for advanced students. Organic preparations are made in the laboratory. Lectures and recitations three hours, laboratory practice six hours a week.

ASSOCIATE PROFESSOR MORROW.

458. ADVANCED ORGANIC CHEMISTRY. A continuation of 457. Lectures and recitations three hours, laboratory practice six hours a week.

ASSOCIATE PROFESSOR MORROW.

521. AMERICAN CHEMISTRY.—A study of the fundamental importance of chemistry in our modern life and of the real contribution the United States has made and is making to it. A non-technical course, intended to be of general cultural value. Lectures and recitations two hours a week.

PROFESSOR HALE.

532. SPECTRUM ANALYSIS.—A study of the principles of spectroscopy with practical applications in the laboratory. Lectures and recitations two hours, laboratory practice three hours a week.

MR. HUMPHREYS.

533. METALLURGY.—A practical course in this subject with lectures and recitations two hours, laboratory practice three hours a week.

MR. TRIMBLE.

631-639. SPECIAL METHODS IN QUANTITATIVE ANALYSIS.—This course includes Sanitary Water Analysis, Electro-analysis, Ultimate Organic Analysis, Coal and Coke Analysis, Analysis of Road Materials, Gas Analysis, Analysis of Certain Rocks, etc. Chiefly laboratory practice, nine hours a week including conferences. The amount of credit is to be arranged with the individual student before he registers for the course.

PROFESSOR HALE, MR. TRIMBLE.

831. RESEARCH.—Problems in research will be given to graduates or others who are considered capable of successfully attacking them. Credit will vary in accordance with the amount of work done.

PROFESSOR HALE.

806. JOURNAL MEETINGS.—Members of the faculty, graduates and advanced students will meet at certain times for the discussion of articles in the current chemical literature. No credit for this course.

PROFESSOR HALE.

## ECONOMICS AND SOCIOLOGY

PROFESSOR STEWART, ASSISTANT PROFESSOR FOREMAN, MR. WATTS.

This department offers instruction in economic principles in relation to individuals, particular businesses and the public welfare.

*Requirements for a Major in Economics.* forty-five credit hours, including courses 540, 541, 520, 521, 641, and 642, or their equivalent. Students in the College of Education preparing to teach commercial subjects may complete a major in this department with courses 540, 541, 520, 521, 549, 630, 631, 632, 633, 835, 935 and three hours of elective.

COURSES			
No.	Title	Credit	Prerequisites
540	Principles of Economics.....	4	None
541	Principles of Economics, concluded.....	4	540
542	Transportation .....	4	None
520	Business Organization and Management.....	2	None
521	Business Organization and Management, concl. 2 .....	2	520
543	Money and the Price System.....	4	540, 541 or 520, 521
544	Capital and Credit Institutions.....	4	540, 541 or 520, 521
545	Business Statistics .....	4	540, 541
*530	Labor Organization and Legislation.....	3	540, 541
547	Principles of Sociology .....	4	None
548	Problems in Social Betterment.....	4	None
531	Insurance .....	3	540, 541
522	Domestic Commerce .....	2	520, 521
523	Foreign Commerce .....	2	520, 521
546	Banking Principles and Practices.....	4	544
*532	Socialism .....	3	540, 541
533	Government Regulation of Industry.....	3	520, 521
430	Principles of Agricultural Economics.....	3	None
*431	Agricultural Selling and Buying.....	3	431 or 540, 541
*432	Rural Institutions and Welfare.....	3	None
549	Business Finance and Investments.....	4	520, 521
640	Public Finance .....	4	540, 541
*641	Economic History of the United States.....	4	540, 541
*642	Current Economic Problems.....	4	540, 541
740 (741)	Business Law.....	8	None
433	Business Law (Engineers only).....	3	None
730 (731)	Elementary Accounting.....	6	None
732 (733)	Advanced Accounting.....	6	730, 731
734	Auditing .....	3	732, 733
440	Farm Accounting .....	4	None
†340	Elementary Economics .....	4	†
†130 (131)	Shorthand .....	2	None
†132 (133)	Typewriting .....	0	None

†See statement.

\*See page 72.

NOTE.—Freshmen whose high school preparation has been good may be admitted to courses numbered 520 and upward upon consent of the head of the department.



540. PRINCIPLES OF ECONOMICS.—The fundamentals of economic science and a preliminary survey of economic relations as organized by private interests and public agencies. Recitation and class discussion four hours a week.

PROFESSOR STEWART,  
ASSISTANT PROFESSOR FOREMAN.

541. PRINCIPLES OF ECONOMICS.—A continuation of course 540.

PROFESSOR STEWART,  
ASSISTANT PROFESSOR FOREMAN.

542. TRANSPORTATION.—A course dealing with transportation facilities as determinants of market situations; the economics of the good roads movement, and the cost and service of inland waterways and steam and electric railways; ocean ports and carriers. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR FOREMAN.

520. BUSINESS ORGANIZATION AND MANAGEMENT.—Individual proprietorship, partnership and cooperation; the process of organizing a business; the economic reasons for growth of trusts and other types of big business organizations. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR FOREMAN.

521. BUSINESS ORGANIZATION AND MANAGEMENT.—Organization for operation and the reaction of forms of organization on efficiency; gradation and interrelation of divisions and departments; departmental responsibility and authority; scientific management as a factor in operating efficiency. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR FOREMAN.

543. MONEY AND THE PRICE SYSTEM.—A study of the relation of value to price; the price-making process, barter and the evolution of money; development of the system of metallic and paper currency now in use in the United States; pecuniary organization and the business cycle. Lectures and recitations four hours a week.

PROFESSOR STEWART.

544. CAPITAL AND ITS INSTITUTIONS.—A study of the function of capital goods in the productive process; capital accumulation and the rate of interest; banks, security brokers, and other agencies for the mobilization of capital; the nature and functions of credit. Lectures and recitations four hours a week.

PROFESSOR STEWART.

545. BUSINESS STATISTICS.—Sources of statistical data; purposes of statistics; preparation of schedules; analysis of returns; methods of computing averages and index numbers; construction and use of frequency tables; graphic methods and their uses; limitations of statistics; application of statistical methods to current problems. Lectures and recitations four hours a week.

PROFESSOR STEWART.

546. LABOR ORGANIZATION AND LEGISLATION.—Origin and development of labor organizations, strikes and boycotts, arbitration, conciliation, and government control; the problem of woman and child labor, profit-sharing and co-operation, and the minimum wage; unemployment and the insecurity of the worker's position. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR FOREMAN.

547. ELEMENTARY SOCIOLOGY.—A study of the antiquity of man; folk ways and primitive customs; the origin of modern institutions; classification of social activities; social control of individual conduct; and the various theories of social progress. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR FOREMAN.

548. PROBLEMS IN SOCIAL BETTERMENT.—An examination into the nature, causes, and treatment of selected social problems, crime, pauperism, mental defect, intemperance, and juvenile delinquency, discussed in the light of modern sociological theory. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR FOREMAN.

549. INSURANCE.—A course dealing with the economic functions of insurance, types of life policies, methods of rate-making, agency and investment; fire and other forms of property insurance; the problem of government regulation; social insurance. Lectures and recitations three hours a week.

MR. WATTS.

522. DOMESTIC COMMERCE.—The economic conditions which lead to the development of domestic trade; wholesale and retail trade organizations; markets, fairs, auctions, stock and produce exchanges; department, mail-order, and cooperative stores; commercial travelers; commercial competition; modern advertising; mercantile credit. Special attention is given to Arkansas products and their handling. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR FOREMAN.

523. FOREIGN COMMERCE.—Historic trade routes and centers; tariffs and trade policies; exporting and importing; ocean transportation; line and charter traffic; institutions for promoting export trade; the consular service; entry of goods; the work of the custom house. Special attention is given to trade opportunities in countries opened to American trade by war and post-bellum developments. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR FOREMAN.

546. BANKING PRINCIPLES AND PRACTICES.—A study of national banks and the Federal Reserve system; state banking systems (with special reference to Arkansas); trust companies and private bankers; a practical study of organization and operation. Lectures and recitations four hours a week.

PROFESSOR STEWART.

532. SOCIALISM.—A study of the historical background of socialism, the work of Marx, and various modern schools of socialistic thought; character and scope of the present socialistic movement; socialism, as a criticism of classical political economy and existing institutions; socialism, as a theory of social evolution and as a program of social reform. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR FOREMAN.

533. GOVERNMENT REGULATION OF INDUSTRIES.—A study of the mediaeval industrial policy; the problem created by the growth of large incorporated business; pools, trusts, holding companies, gentlemen's agreements; the Sherman Act and subsequent state and federal legislation; government regulation of railways; the

Federal Trade Commission and the enlargement of the field of state control. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR FOREMAN.

430. PRINCIPLES OF AGRICULTURAL ECONOMICS.—A course dealing with the principles of economics as applied to the concrete problems of rural life; economic organization of the business of farming; the problem of distribution as touching rents and values of farm lands, farm labor and wages, rates of interest and profits in agriculture. A course designed for all persons identified with rural communities, teachers, merchants, bankers, as well as those who expect to engage directly in farming. Lectures and recitations three hours a week.

PROFESSOR STEWART.

431. AGRICULTURAL SELLING AND BUYING.—A course dealing with the practical problems of marketing, credits, labor hiring, purchase of land and supplies. Special attention is given to co-operative enterprise. Lectures and recitations three hours a week.

PROFESSOR STEWART.

432. RURAL INSTITUTIONS AND VILLAGES.—A course dealing with the problems of farm and village life in the light of economic science. The community features of rural life designed to give the economic, educational and ethical accumulations of rural civilization permanent form are studied intensively. A practical training course for farmers and for other prospective leaders in rural school, church and other community activities for rural development. Lectures and recitations three hours a week.

PROFESSOR STEWART.

540. BUSINESS FINANCE AND INVESTMENTS.—A course dealing with organization of the corporation; the problem of proper capitalization; the financial plan, sale of securities, management of corporate income, receivership and reorganization; the investor's problem of ascertaining the earning power and value of bonds and stocks; suitability of various securities to different investment needs. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR FOREMAN.

640. PUBLIC FINANCE.—The growth of public expenditures; purpose and methods of budget-making; sources of public revenue, systems of collection and administration. Special attention will be given to the problems of state and local taxation. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR FOREMAN.

641. ECONOMIC HISTORY OF THE UNITED STATES.—A critical study of the events of our history in the light of economic principles; the trend of past industrial development and the source of present conflicts. Lectures and recitations four hours a week.

PROFESSOR STEWART.

642. CURRENT ECONOMIC PROBLEMS.—Using course 641 as a foundation, an attempt is made to analyze our present-day problems and to get down to the essential issues upon which modern industrial society divides. The significance of property rights, separation of economic classes, social control of industry, and the goal of economic effort are the main topics dealt with. Lectures and recitations four hours a week.

PROFESSOR STEWART.

740 (741). BUSINESS LAW.—A study of the application of those phases of the law that govern business transactions, such as contracts, agency, negotiable instruments, bailments, insurance, corporation and the transfer of real and personal property. Lectures and recitations four hours a week.

MR. WATTS.

433. BUSINESS LAW.—For senior students in Engineering only. A condensation of course 740, 741. Lectures and recitations three hours a week.

MR. WATTS.

730 (731). ELEMENTARY ACCOUNTING.—The theory and practice of double entry bookkeeping illustrating the uses of the fundamental books, the interpretation and classification of accounts, preparation and analysis of statements. Class and laboratory work three hours a week.

MR. WATTS.

732 (733). **ADVANCED ACCOUNTING.**—Partnership and corporation accounts, treatment of goodwill, depreciation, profits, reserves; functions of the financial statement; statement of affairs, and realization and liquidation accounts. Class and laboratory work three hours a week.

MR. WATTS.

420. **FARM ACCOUNTING.**—Principles of accounting and cost finding applied to farming operations and its relation to farm management. Class work and written problems four hours a week.

MR. WATTS.

734. **AUDITING.**—Purpose and value of an audit; types of audits; method of making the detailed audit. Four hours a week.

MR. WATTS.

340. **ELEMENTARY ECONOMICS.**—A brief course for junior and senior students pursuing Smith-Hughes curriculums. Lectures and recitations four hours a week. (*Given in alternate years; not given in 1919-1920.*)

†130 (131). **SHORTHAND.**—Theory and practice of Gregg shorthand supplemented by speed study and practice. Three hours a week, for two terms. One hour credit per term.

MR. WATTS.

†132 (133). **TYPEWRITING.**—Mastery of the keyboard and time-saving devices of the standard typewriter by the touch system; care of the machine; speed practice and speed tests. One hour registration for each three hours practice, a week. No credit.

MR. WATTS.

†These courses are designed to help regular students of the University who may be called upon to teach or practice these arts incidentally to other teaching or business work. Students wishing to enroll only in shorthand, typewriting, and elementary accounting are advised to attend some institution specializing in non-university business training.

The College of Education grants credit for work in these courses to correspond to the registration hours provided the



student meets an objective standard of performance set by the instructor at the end of the term.

Registration hours in course 132 (133) may be reduced to two upon consent of the instructor.

## ENGLISH

PROFESSOR JONES, PROFESSOR JORDAN, ASSISTANT PROFESSOR WILLIAMS, ASSISTANT PROFESSOR HOLCOMBE, MISS DAVIS,

MR. RADDER, MISS LANIER, MISS DICKEY

The aim of the courses in the department of English is (1) to train students to write English clearly and correctly, and (2) to teach them to understand and to appreciate the best in literature. Every course in composition, therefore, is accompanied by a considerable amount of required readings, and every course in literature requires a certain amount of written criticism.

*Requirements for a Major in English*, fifty-four term hours, including courses 141 (142) (143), or 131 (132) (133), 542 (543) or 144 (145) (146), 531 (532) or 547 or Public Speaking 533 (534), and two from the following three: 641 (642), 643, 644 (645). Students who expect to teach English in the secondary schools should complete at least forty-five term hours in English, with some credits in literature and some in language. Course 745 should be included.

## COURSES

### English

No.	Title	Credit	Prerequisites
§131 (132) (133)	Rhetoric and Composition.....	9	†
141 (142) (143)	Rhetoric and Composition.....	12	†
144 (145) (146)	Composition and Literature.....	12	†
231 (232) (233)	English Composition .....	9	†
331 (332) (333)	English Composition .....	9	141-3 or 144-6
531 (532)	Advanced Composition ..	6	141-3 or 144-6
542 (543)	English Literature in Outline.....	8	141-3
544	American Literature .....	4	141-3, 542-3 (or 144-6)
545	English Prose Fiction.....	4	141-3, 542-3 (or 144-6)
546	Lyric Poetry .....	4	141-3, 542-3 (or 144-6)
547	The Short Story.....	4	141-3, 542-3 (or 144-6)
*548	Eighteenth Century .....	4	141-3, 542-3 (or 144-6)
*549	Romantic Poets .....	4	141-3, 542-3 (or 144-6)
*641 (642)	Chaucer .....	8	†
*643	Anglo-Saxon .....	4	141-3, 542-3 (or 144-6)

*644 (645)	Shakespeare .....	8	141-3, 542-3 (or 144-6)
*646	The Elizabethan Drama .....	4	141-3, 542-3 (or 144-6)
647	Tennyson and Browning.....	4	141-3, 542-3 (or 144-6)
721 (722) (723)	Literature of the Bible.....	6	141-3, 542-3 (or 144-6)
*731 (732)	Contemporary Dramatists .....	6	141-3, 542-3 (or 144-6)
741	Milton .....	4	141-3, 542-3 (or 144-6)
*742	Nineteenth Century Essayists .....	4	141-3, 542-3 (or 144-6)
*743	Literary Criticism .....	4	†
*744	Comparative Literature .....	4	†
745	The Teaching of English.....	4	†

## Public Speaking

533 (534)	Argumentation .....	6	141-3 or 144-6
535	Public Speaking .....	3	141-3 or 144-6
541	Intercollegiate Debate .....	4	†

## Journalism

101 (102) (103)	The American Newspaper.....	0	†
537 (538) (539)	Newspaper Writing .....	9	141-3 or 144-6
521 (522) (533)	Newspaper Editing .....	6	141-3 and 537-9

†See statement.

‡Course 131 (132) (133) may be substituted for 141 (142) (143) as a prerequisite for advanced courses in English.

\*See page 72.

131 (132) (133). RHETORIC AND COMPOSITION.—Recitations, themes, conferences, and required reading three hours a week. The student is given some practice in argumentation, description, and narration, but the chief drill is in expository writing. *Required of all freshmen in the Colleges of Agriculture and Education, who present at least three units in English for entrance.*

PROFESSORS JONES AND JORDAN,

ASSISTANT PROFESSORS WILLIAMS AND HOLCOMBE,

MISSSES DAVIS AND LANIER.

141 (142) (143). RHETORIC AND COMPOSITION.—This course differs from the preceding course during the last term, when the student will be given an intensive drill in various forms of writing in use at the present time. Lectures and recitations, four hours a week. *Required of all freshmen in the Colleges of Arts and Sciences and Engineering who present at least three units in English for entrance, except those who are admitted to English 144-6.*

PROFESSOR JONES AND JORDAN,

ASSISTANT PROFESSORS WILLIAMS AND HOLCOMBE,

MISSSES DAVIS AND LANIER.

144 (145) (146). **COMPOSITION AND LITERATURE.**—This course corresponds, in part, to English 141-3 and is intended for those students who have had four years of English in the high school and who have shown marked proficiency in the subject. No student is admitted to this course without the consent of the instructor. About half of the time is devoted to a study of exposition and argumentation and the rest of the time to a study of various types of literature. Lectures, recitations, themes, and assigned readings, four hours a week, three terms.

PROFESSOR JONES.

231 (232) (233). **ENGLISH COMPOSITION.**—This course is required of all students in the College of Arts and Sciences who do not make a grade higher than "D" in Freshman English. It consists largely of practice in writing and intensive drill in correct usage of spoken and written English.

331 (332) (333). **ENGLISH COMPOSITION.**—A course in technical writing, with some study of scientific and technical articles of various kinds. This course is open only to students in the Colleges of Agriculture and Engineering who have credit for English 141-3 or its equivalent. Lectures, recitations, and themes, three hours a week throughout the year.

PROFESSOR JONES.

531 (532). **ADVANCED COMPOSITION.**—The purpose of this course is to teach the principles of exposition and to develop the ability to write clear and vigorous prose. Themes, assigned readings, and conferences, three hours a week, two terms.

ASSISTANT PROFESSOR HOLCOMBE.

542 (543). **ENGLISH LITERATURE IN OUTLINE.**—A study of the life and the literature of the English people from Anglo-Saxon times to the close of the nineteenth century. Lectures, study of the works of representative authors, reports, and critical essays. Four hours a week, two terms.

PROFESSORS JONES AND JORDAN,  
ASSISTANT PROFESSOR WILLIAMS.

544. **AMERICAN LITERATURE.**—Considerable stress is laid on Colonial and Revolutionary literature with readings and reports on interesting material that the student has difficulty in finding

for himself. A study is then made of Irving, Cooper, Bryant, Poe, Emerson, Lowell, Longfellow, Hawthorne, Whittier, Holmes, and Whitman, followed by a consideration of the minor poets of the South. Lectures and recitations, four hours a week, one term.

ASSISTANT PROFESSOR HOLCOMBE.

545. ENGLISH PROSE FICTION.—The course involves a study of various types of prose fiction, the personalities of the writers, and the characteristics of their works. Scott, Jane Austen, Dickens, Thackeray, George Eliot, Hawthorne, Charlotte Brontë, Reade, and Hardy are some of the authors studied. Lectures, readings, and critical reports, four hours a week, fall term.

ASSISTANT PROFESSOR WILLIAMS.

546. LYRIC POETRY.—A study of the greatest examples of lyric poetry, not only in English but in other literatures, wherever adequate translations are available. Lectures and recitations, four hours a week, one term (*Not offered in 1919-1920*).

PROFESSOR \_\_\_\_\_

547. THE SHORT STORY.—The work of this course consists partly in careful reading and criticism of short stories, and partly in story writing. The purpose of the course is to give the student a sound critical knowledge of the modern short story, and to offer practical training in the writing of fiction to those who have the necessary ability. Lectures and recitations, four hours a week, spring term.

PROFESSOR JORDAN.

548. EIGHTEENTH CENTURY LITERATURE.—Primarily a study of the prose and poetry of the Classical period, with an attempt to outline the principles of Classicism. Some attention is given to the beginnings of Romanticism, as shown in the work of such writers as Thomson, Collins, Gray, Cowper, Chatterton, Macpherson, Burns, and Blake. A brief treatment of the rise of literary types, such as the periodical essay and the novel. Lectures and recitations, four hours a week, one term.

PROFESSOR JORDAN.

549. BRITISH ROMANTIC POETS OF THE NINETEENTH CENTURY.—This course deals principally with the poetry of Wordsworth,

Coleridge, Scott, Byron, Shelley, and Keats. Through the work of these men is traced the development of English Romantic poetry, as related to the life and thought of the nineteenth century. Lectures and recitations, four hours a week, fall term.

PROFESSOR JORDAN.

641 (642). CHAUCER.—A study of Chaucer's language and literary style for the purpose of comprehending his genius as a poet. Students must have the consent of the instructor before electing this course. Lectures and recitations, four hours a week, fall and winter terms.

PROFESSOR JORDAN.

643. ANGLO-SAXON.—The purpose of this course is to give students a knowledge of the earliest form of English. Constant comparison of modern English with Anglo-Saxon is made. Lectures and recitations, four hours a week, one term.

PROFESSOR JONES.

644 (645). SHAKESPEARE.—A critical study of six plays. Lectures and recitations, four hours a week, fall and winter terms.

ASSISTANT PROFESSOR WILLIAMS.

646. THE DRAMA IN ENGLAND FROM 1580 TO 1642.—While the course deals chiefly with Lyly, Greene, Kyd, Peele, Marlowe, Shakespeare, Ben Jonson, Dekker, Marston, Heywood, Chapman, Middleton, Beaumont and Fletcher, Webster, Ford, Massinger, and Shirley, from a dramatic and a literary point of view, a historical background will be given by lectures on the pre-Elizabethan drama as an introduction to the course proper. Lectures, readings, and reports, four hours a week, spring term.

ASSISTANT PROFESSOR WILLIAMS.

647. TENNYSON AND BROWNING.—Emphasis is placed, in this course, upon the art and thought of Tennyson and Browning, in their relation to modern life. Lectures and recitations, four hours a week, one term.

PROFESSOR JORDAN.

721 (722) (723). LITERATURE OF THE BIBLE.—A literary study of the Bible. The first two terms are devoted to the Old Testa-

ment and the third term to the New Testament. Lectures, recitations, and parallel readings. Three hours a week, with six term-hours' credit for the year.

MISS DICKEY.

731 (722). THE CONTEMPORARY DRAMA.—A study of recent plays in Europe and America from the literary, dramatic, and social points of view, with discussion and illustration of dramatic principles. Some of the dramatists to whom particular attention is given are Ibsen, Hauptmann, Sudermann, Rostand, Maeterlinck, Pinero, Jones, Galsworthy, Thomas, Fitch, and Moody. Lectures, reading and dramatic criticism, three hours a week, winter and spring terms.

ASSISTANT PROFESSOR WILLIAMS.

741. MILTON.—An intensive study of the poetry of Milton, with some consideration of his prose. Lectures and recitations, four hours a week, one term. (*Not offered in 1919-1920*).

742. ESSAYS OF THE NINETEENTH CENTURY.—Attention is given chiefly to Lamb, DeQuincey, Macaulay, Carlyle, Emerson, Newman, and Arnold. Lectures, readings, and reports, four hours a week, spring term.

PROFESSOR JONES,

ASSISTANT PROFESSOR HOLCOMBE.

743. LITERARY CRITICISM.—The aim of this course is to present the more generally accepted principles of literary criticism and to apply them to the chief types of literature, such as the drama, the essay, prose fiction, and poetry. Students must have the consent of the instructor before electing this course. Lectures and recitations, four hours a week, one term.

PROFESSOR JONES.

744. COMPARATIVE LITERATURE.—A general survey of some of the more important works of Continental writers and of literary tendencies since the Renaissance, with stress upon such as have been influential in England. A number of masterpieces, either originally important or representing great movements in literature, will be read in translation. Students must have the consent of the instructor before electing this course. Four hours a week, one term.

PROFESSOR JONES.

745. **THE TEACHING OF ENGLISH.**—This course presents the aims, methods, and organization of English in the high school. It includes practice in the correction of themes, a study of some of the classics used for high school reading, and a rapid review of some parts of grammar and rhetoric. Students must have the consent of the instructor before electing this course. Four hours a week, one term.

PROFESSOR JONES.

#### PUBLIC SPEAKING

533 (534). **ARGUMENTATION.**—The aim of the course is two-fold: to teach the principles of argumentation and of sound reasoning power; and to afford practice in the application of these principles in frequent discussions and debates. Lectures, recitations, readings, and class exercises, three hours a week, fall and winter terms.

PROFESSOR JORDAN.

535. **PUBLIC SPEAKING.**—The work of this course includes lecture and textbook work upon the principles of effective public speaking, and affords training in both formal and informal address. Lectures, recitations, class exercises, three hours a week, spring term.

PROFESSOR JORDAN.

541. **INTERCOLLEGIATE DEBATE.**—The question for intercollegiate debate is studied and briefed, and frequent practice debates are held. This course is open only to students who have been awarded places on the intercollegiate debating squad. Four term-hours, credit.

PROFESSOR JORDAN.

#### JOURNALISM

101 (102) (103). **THE AMERICAN NEWSPAPER.**—Practical talks on the work of the newspaper reporter, with practice in newspaper writing. This course is intended primarily for freshmen. One hour a week, no credit.

MR. RADDER.



537 (538) (539). **NEWSPAPER WRITING.**—This course is intended for students who expect to take up newspaper work as well as for those who may not make journalism their profession, but who wish to have some training in newspaper methods. The work includes a consideration of methods of getting the news, the work of the press associations, writing of news, news values, and practice with assignments. The various forms of news writing are studied, such as the interview, the human interest story, feature stories, reports of speeches and trials, Sunday stories, and the like. The course is made as practical as possible by carrying on much of the work of the class in connection with student publications. Three hours a week throughout the year.

MR. RADDER.

521 (522) (523). **NEWSPAPER EDITING.**—Instruction and practice in editing copy, correcting proof, writing headlines, making up, rewriting, and other details of editing; and in the organization and methods of local, state, and national news gathering. Open to students who have had English 237-9. Two hours a week throughout the year.

MR. RADDER.

## FINE ARTS

MR. TOVEY, MISS GALBRAITH, MRS. CROCKETT, MRS. BATMAN,  
MISS METZGER, MISS BELL, MISS CRAWFORD,  
MR. MITCHELL, MR. HANSARD.

The Department of Fine Arts offers courses in the theory of music, piano, violin, voice, art and expression.

A statement of the requirements for admission will be found on page 34, for regular students, and on page 47, for special students. A statement of tuition and fees will be found on page 50.

Courses in music leading to a diploma or a certificate are outlined on page 70.

Six term hours' credit toward the Bachelor of Arts degree will be allowed for work in music, of which not more than three

shall be allowed for courses in piano, violin and voice. One year in either piano, violin or voice must be completed in college before the student can enroll for credit in that subject. No credit is allowed unless the student takes at least two lessons a week.

The courses in art and expression may be elected with credit, in no case to exceed twenty seven term hours, by students in all courses.

### COURSES

#### Theory of Music

No.	Title	Credits	Prerequisites
111 (112) (113)	Harmony	3	†
211 (212) (213)	Advanced Harmony	3	†
114 (115) (116)	History of Music...	3	†
117 (118) (119)	Opera Study ..	3	†
311 (312) (313)	Counterpoint	3	†

#### Piano

Freshman	0	†
Above Freshman	3	†

#### Violin

Freshman	0	†
Above Freshman	3	†

#### Voice

Freshman	0	†
Above Freshman	3	†

#### Art

121 (122) (123)	Freehand Drawing	6	None
521 (522) (523)	Still-life and Landscape painting	6	121 (122) (123)
124 (125) (126)	Elementary Design	6	None
524 (525) (526)	Constructive Design ..	6	124 (125)
111 (112)	Penmanship and Lettering.	2	None
127 (128) (129)	Normal Art	6	None
621 (622) (623)	Jewelry	6	124

#### Expression

131 (132) (133)	Vocal Expression	9	†
121	The Teaching of Reading.	2	131 (132) (133)†
521 (522)	Vocal Interpretation	4	131 (132) (133)†
531 (532)	Dramatic Interpretation of Shakespeare's Plays	6	131 (132) (133)†
533	Continuation of 531 (532)	3	531 (532)†
523 (524) (525)	Vocal Expression as Art	6	131 (132) (133)†
534 (535)	Art of Play Reading.....	6	†
536	Continuation of 534 (535)...	3	534 (535)†

†Permission must be secured from the instructor in charge before registering for any course in this department.

# UNIVERSITY OF ARKANSAS LIBRARY

COLLEGE OF ARTS AND SCIENCES

101

## THEORY OF MUSIC

111 (112) (113). HARMONY—Keys, scales, and signatures; simple part writing; chords of the seventh and their inversions; altered and augmented chords; modulation. One hour a week.

MR. MITCHELL.

211 (212) (213). ADVANCED HARMONY.—Modulation continued; suspension; passing chords; unharmonious notes; organ point; harmonization of melodies; playing of figures bases; double chants and chorals. One hour a week.

MR. MITCHELL.

114 (115) (116). HISTORY OF MUSIC.—Music among ancient peoples; early church music; the development of polyphonic and dramatic music; the history of instrumental music and the evolution of musical instruments; the development of the opera and oratorio; modern music and musicians. One hour a week.

MR. MITCHELL.

117 (118) (119). OPERA STUDY.—The librettos and stories of various standard operas are studied. Concerts are given weekly, consisting of selections from talking machine records with piano accompaniments. One hour a week.

MR. TOVEY.

311 (312) (313). COUNTERPOINT.—First semester: single counterpoint in all forms, two and three voices; second semester; single counterpoint in four voices and double counterpoint, all forms. One hour a week.

MR. TOVEY.

## PIANO

The aim of the courses in piano music is to develop technical control and power of musical conception as adapted to artistic ends.

PREPARATORY GRADES.—*National Graded Course*, Books 1 and 2; simple exercises for wrist development, major scales, broken chords, and arpeggios. Sonatinas by Diabelli, Clementi, Lichner; studies from Koehler, Biehl, Loeschorn, Czerny, Gurlitt; salon pieces; preparatory octave work.

MR. TOVEY,  
MISS BELL,  
MR. MITCHELL.

INTERMEDIATE GRADE.—Selected technics from Tausig, Krauss, Heller, Loeschorn, *Op. 66*; Czerny, *Op. 299*; sonatas by Mozart, Kuhlau, Haydn, Beethoven, Mendelssohn's *Songs without Words*; Smith and Low's *Octave Studies*; duets for piano, and piano and violin; Bach's *Little Preludes and Fugues*.

MR. TOVEY,  
MISS BELL,  
MR. MITCHELL.

ADVANCED GRADE.—Extended scales in various accents; diminished and dominant seventh arpeggios; etudes from Czerny, *Op. 740*; Heller, *Op. 45*; Cramer; Clementi's *Gradias Parnassum*; Kullak's *Octave Studies*; Bach's *Suites, Preludes, Fugues*; Chopin, *Op. 10* and *Op. 25, Valses, Preludes, Nocturnes*; Beethoven, *Sonatas*; compositions by Mendelssohn, Schumann, Schubert, Liszt, Grieg, MacDowell, and other modern composers.

MR. TOVEY,  
MISS BELL,  
MR. MITCHELL.

#### ACCOMPANIMENT.

THE TEACHING OF MUSIC.—A course designed for students who expect to teach music.

MR. TOVEY.

#### VIOLIN

The instruction in violin music is designed to form correct technique. In addition to the studies, the student is given compositions of the standard composers for the violin.

FIRST AND SECOND GRADES.—Studies by Dancía and Dont.

MR. HANSARD.

THIRD AND FOURTH GRADES.—Studies by Kayser, Kreutzer, and Schradick.

MR. HANSARD.

FIFTH AND SIXTH GRADES.—Studies by Kreutzer, Fiorillo, and Rhode.

MR. HANSARD.

## VOICE

The purpose of instruction in this branch of music is the correct production of tone and the building and development of the voice according to the old Italian method. Special stress is laid on breath control, accuracy of tone, distinct articulation, the study of intervals, scale building, sight reading, and phrasing.

PREPARATORY GRADES — Marchesi's *Individual Exercises*; Ponomofka's *Vocalises*, *Op. 85*; Studies in sight reading and easy songs.

MRS. BATEMAN.

INTERMEDIATE GRADE. — Corcone, *Op. 12*; Marchesi's *Individual Exercises*, Ponomofka's *Vocalises*, *Op. 81*; Sieber's *Vocalises*, *Op. 94*; Corcone's *Lessons*, *Op. 17*, and songs of moderate difficulty, including oratorio selections.

MRS. BATEMAN.

ADVANCED GRADES — Lamperti's *Studies in Bratura*; oratorio and opera arias and more difficult songs by English, French, Italian, and German composers.

MRS. BATEMAN.

## THEORY AND PRACTICE OF ART

The plan of incorporating a practical school of drawing and painting in a college course has been demonstrated as not only possible but very successful. The studio work is conducted in the same manner as in the purely technical art schools, while the students have the advantage of doing regular college work which renders them more sensitive to artistic impression.

No tuition is charged for these courses.

121 (122) (123). DRAWING. Drawing from casts, life, and perspective problems. Four hours a week. Students may enter at beginning of any term.

MISS GALBRAITH.

521 (522) (523). STILL-LIFE AND LANDSCAPE PAINTING. — Painting still life, and landscape with original composition. Four hours a week. Students may enter at beginning of any term.

MISS GALBRAITH.

124 (125) (126). **ELEMENTARY DESIGN.**—Two hours of theory and practice of design, and two hours of instruction and practical application of the principals of design to definite problems in costume and interior decoration.

MISS METZGER.

524 (525) (526). **CONSTRUCTIVE DESIGN.**—This course directly applies well recognized principles of general design to specific materials and problems encountered in the Industrial Arts. Four hours a week.

MISS METZGER.

111 (112). **PENMANSHIP AND LETTERING.**—The object of the course in penmanship is to develop rapid, easily executed, individual business writing. The course in lettering includes both freehand and drafted lettering. Two hours a week.

MISS METZGER.

127 (128) (129). **NORMAL ART.**—This course presents the teaching of art in the public schools not as "Drawing" from a realistic point of view, but Design and Color as the basis of an Art that is related to the industries with Utility as the supreme test. Four hours a week.

MISS GALBRAITH.

527 (528) (529). **ADVANCED NORMAL ART.**—This course is a continuation of course 127-129. Four hours a week.

MISS GALBRAITH.

621 (622) (623). **JEWELRY.**—The designing and making of hand wrought jewelry. Four hours a week.

MISS METZGER.

#### EXPRESSION

The aim of the courses in this department is (1) to secure naturalness and freedom from self-consciousness in reading and speaking and (2) to train the student to arrive at a correct understanding of literature and the appreciation of its spirit and essence through vocal interpretation. The student is made to realize that the reader's concept is mental. The voice and body are trained to willing obedience to this mentality. Close attention is given to voice culture and correct articulation.

131 (132) (133). VOCAL EXPRESSION.—First term, the fundamental principles in the correct use of the body and voice in speaking and reading; second and third terms, accuracy of observation and care in analysis. The student is trained to read aloud simply, easily, and naturally, from such works as the Old Testament, New Testament, Emerson's Essays, Longfellow's poems, and Shakespeare's plays. Some attention is given to storytelling, speech-making, and dramatic interpretation. Three hours a week.

MRS. CROCKETT.

121. THE TEACHING OF READING.—A course designed for prospective public school teachers, aiming to give a definite, practical method of instruction which shall apply to each grade. Two hours a week.

MRS. CROCKETT.

521 (522). VOCAL INTERPRETATION.—An advanced course in the interpretation of literature. Special attention is given to the study of Tennyson, Browning, and the dramatic monologue, forms of literature, and literary analysis. Two hours a week.

MRS. CROCKETT.

531 (532). DRAMATIC INTERPRETATION OF SHAKESPEARE'S PLAYS.—A careful analysis and reading of three or four plays. At the end of the year one of the plays will be given in costume by the members of the class. Students in the course are advised to take English 644 (645). Three hours a week.

MRS. CROCKETT.

533. A Continuation of 531 (532). Three hours a week.

MRS. CROCKETT.

523 (524) (525). VOCAL EXPRESSION AS ART.—Impersonation, gesture, dialect, reading, recitation, preparation of programs, and "cutting" and adapting selections for the platform. Students will be required to prepare selections and present them before the class for criticism. Two hours a week.

MRS. CROCKETT.

534 (535). THE ART OF PLAY READING.—Plays are read aloud or put into rehearsal in order that students may vitalize the



characters and perceive the fundamental thing; the reaction of one thought and emotion upon another. Frequent readings by the instructor from masterpieces of the drama are given before the class. The class is affiliated with the Drama League of America. Three hours a week. This course is open only to advanced students.

MRS. CROCKETT.

536. A continuation of 534 (535). Three hours a week.

MRS. CROCKETT.

## GEOLOGY

PROFESSOR DRAKE

*Requirements for a Major in Geology*, courses 141, 142 (143), 231, 232 (233), 321, 531, 331, 334, 337 (338) or 431 or Mining Engineering 321 (322) in addition to which a report must be submitted in the senior year, to include maps, sections, and other necessary illustrations of some area, the geology of which the student has made a special study. Students who expect to teach geography and physiography in the secondary schools should complete, as a minimum requirement, courses 141, 142 (143) and 321. A course in the teaching of science should be included. Students in the course in agriculture are recommended to take courses 141 142 (143) and students in the course in civil engineering, courses 142 (143), 334 and 331. Students who are seeking a general knowledge of geology as a part of a cultural education should elect courses 141, 142 (143), and 231, 232 (233).

As an aid in the instruction in geology, localities about the University will be cited and some field work in those localities required of students. Within a short distance are found formations from the Cambro-Ordovician to the Pennsylvanian, inclusive. The Ozark plateau region about Fayetteville offers abundant opportunity for physiographic studies and stratigraphic mapping as well as paleontological studies.

## COURSES

No.	Title	Credit	Prerequisites
141	Meteorology and Geography.....	4	None
142 (143)	Physical Geography	8	None
231	Biology as Related to Geology	3	142 (143)
232 (233)	Historical Geology....	6	142 (143), 231
321	Practical Geology	2	142 (143)
431	Paleontology	3	231, 232 (233)
334	Economic Geology	3	142 (143) and 331
337 (338)	Petrology	6	531, 331
531	Crystallography and Mineralogy	3	Math. 158. Chem. 141 (142) (143)
331	Blow Pipe Analysis .....	3	Chem. 141 (142) (143)

**141. METEOROLOGY AND GEOGRAPHY.**—An elementary course dealing with the movements and work of the atmosphere and the causes of climatic conditions over the world and the effects upon life that the climatic and physiographic features produce. Lectures and recitations four hours a week.

PROFESSOR DRAKE.

**142 (143). PHYSICAL GEOLOGY.**—A study of the materials of the earth and changes that take place due to the action of the atmosphere, water, organic life and internal forces. Lectures and recitations four hours a week.

PROFESSOR DRAKE.

**231. BIOLOGY AS RELATED TO GEOLOGY.**—An outline study of plants and animals with reference to their relationships, manner of development, and bearing on geology. Lectures three hours a week.

PROFESSOR DRAKE.

**232 (233). HISTORICAL GEOLOGY.**—A study of the development of the earth from its origin to the present time with special reference to the life, physical conditions and rock formations that mark each period of the earth's history. Lectures three hours a week.

PROFESSOR DRAKE.

**321. PRACTICAL GEOLOGY.**—Field and laboratory practice six hours a week including exercises in the construction of geologic sections and maps.

PROFESSOR DRAKE.

**334. ECONOMIC GEOLOGY.**—A course dealing with the formation, mode of occurrence, uses, and geographic distribution of

useful geologic products. Lectures and recitations three hours a week.

PROFESSOR DRAKE.

337 (338). PETROLOGY.—Microscopical and Macroscopical determination of minerals and rocks and classification of rocks. Lectures and recitations first part of course, laboratory work last part of course.

PROFESSOR DRAKE.

431. PALEONTOLOGY.—Lectures and recitations one hour and field and laboratory six hours a week, involving the collection of local fauna and its study.

PROFESSOR DRAKE.

531. CRYSTALLOGRAPHY AND MINERALOGY.—Lectures and recitations three hours a week on the elements of geometric crystallography, followed by laboratory work on the determination of minerals.

PROFESSOR DRAKE.

331. DETERMINATIVE MINERALOGY AND BLOW PIPE ANALYSIS.—Exercises in the determination of minerals by the use of the blow-pipe and in the wet way. Laboratory work six hours a week with occasional recitations.

PROFESSOR DRAKE.

## GERMAN

PROFESSOR BRISCOE

The aim of the courses in this department is to acquaint the student with the German language and literature as a means of culture. An effort is made to give the student a knowledge of the history, customs, and institutions of the German people.

Consideration is given to the needs of those students who wish to learn the language for use in other fields of knowledge.

*Requirements for a Major in German*, fifty-four credit hours. Students preparing to teach German in secondary schools

should consult the head of the department. A course in practice teaching of German in the Training High School should be included.

## COURSES

No.	Title	Credit	Prerequisites
131 (132) (133)	Elementary Scientific German.....	9	None
151 (152) (153)	Elementary German .....	15	None
231 (232) (233)	Advanced Scientific German.....	9	131-133
521 (522) (523)	German Composition .....	6	151-153
531 (532) (533)	Modern German Prose .....	9	151-153
534 (535) (536)	Goethe and Schiller.....	9	521-523, 531-533
537 (538) (539)	Conversation and Composition.....	9	521-523, 531-533
631	History of German Literature.....	3	534-536
632 (633)	History of German Literature.....	6	631
634 (635)	German Lyric and Ballad Poetry.....	6	534-536
636 (637)	Goethe .....	6	†
638	Schiller .....	3	†

†See statement.

131 (132) (133). **ELEMENTARY SCIENTIFIC GERMAN.**—A brief study of the essentials of grammar, with a rapid reading of texts on a variety of subjects, such as chemistry, physics, geology, mathematics, biology, agriculture, and engineering. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

151 (152) (153). **ELEMENTARY GERMAN.**—Grammar, composition and reading of easy texts with conversation; reproduction of assimilated texts. Lectures and recitations five hours a week.

PROFESSOR BRISCOE.

231 (232) (233). **ADVANCED SCIENTIFIC GERMAN.**—Continuation of German 133. Rapid translations of works of a general scientific character, along with a variety of subject matter as found in one of the leading German periodicals. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

521 (522) (523). **GERMAN COMPOSITION.**—A thorough review of grammar is attempted with a systematic introduction of new principles in composition. Lectures and recitations two hours a week.

PROFESSOR BRISCOE.

531 (532) (533). MODERN GERMAN PROSE.—Reading of prose from nineteenth century authors, such as Storm, Heyse, Hauff, Baumbach, Freytag; practice in conversation with the text as a basis; memorizing of idioms; written and oral reproductions of text read and assimilated. Lectures and recitations three hours a week.  
 PROFESSOR BRISCOE.

534 (535) (536). GOTHE AND SCHILLER.—A study of the lives and selected works of these authors; collateral reading and reports. Lectures and recitations three hours a week.  
 PROFESSOR BRISCOE.

537 (538) (539). CONVERSATION AND COMPOSITION.—Oral and written reproduction of stories and anecdotes; conversation and composition based on texts dealing with geography, history, customs and institutions of Germany; examination of text-books and discussion of methods of teaching German. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

631. HISTORY OF GERMAN LITERATURE.—A course dealing with the history of German Literature to the middle of the eighteenth century, with readings of modern German translation from *Ulfi-las*, the *Lay of Hildebrand*, the *Eddas*, the *Heliand*, *Otfried's Book of the Gospels*, *Konrad's Rolandslied*, the *Nibelungenlied*, *Gudrun*, *Heinrich von Veldecke's Aeneid*, *Hartman von Aue's Armer Heinrich*, *Wolfram von Eschenbach's Parzival*, *Gottfried von Strassburg's Tristan*, *Walter von der Vogelweide*. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

632 (633). HISTORY OF GERMAN LITERATURE.—The history of the German Literature from the middle of the eighteenth century to the present; a study of literary movements; reading of selected works from important writers of the period. Lectures, collateral readings and reports three hours a week.

PROFESSOR BRISCOE.

634 (635). GERMAN LYRIC AND BALLAD POETRY.—Lyrics and Ballads of the eighteenth and nineteenth centuries; collateral readings and reports. Lectures and recitations three hours a week.  
 PROFESSOR BRISCOE.

636 (637). **GOETHE**.—This course is given with the view of acquainting students not versed in the language with Germany's greatest man of letters. Lectures on the life and principal works of the poet with assigned readings in translations. While counting for credit, this course may not be used to satisfy the foreign language requirement of twenty hours. Open to sophomores, juniors, and seniors. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

638. **SCHILLER**.—Intended to follow 636 (637) and will be conducted in the same manner, and for the same class of students. The life and works of Germany's most popular poet, second in greatness among the German poets only to Goethe, will form the basis of lectures, collateral reading and discussions. The friendship and the literary cooperation between the two poets will receive attention. Open to sophomores, juniors, and seniors. Lectures and recitations three hours a week.

PROFESSOR BRISCOE.

## HISTORY AND POLITICAL SCIENCE

PROFESSOR THOMAS, ASSISTANT PROFESSOR MARION

The courses in this department are designed to form a part of a general cultural education. They are essential to a thorough preparation for law, journalism, politics, ministry, or any other public calling. Course 151 (152) is foundation work and should be taken in the freshman year.

*Requirements for a Major in History.* forty-five credit hours in history and political science. Students expecting to teach history in the secondary schools should complete at least twenty-seven credit hours in the department. Course 151 (152) should be the basis for this work, and other courses 531-536, should follow.

## COURSES

History				
No.	Title	Credit	Prerequisites	
151 (152)	Mediaeval and Modern History.....	10	None	
131 (132) (133)	Mediaeval and Modern History.....	9	None	
153	History of the United States since 1850....	5	None	
531 (532) (533)	History of the United States since 1776....	9	†	
534 (535) (536)	History of England to 1919.....	9	9 hours	
551	History of Europe since 1789.....	5	9 hours	
*537	England Under the Tudors and Stuarts..	3	15 hours	
*538	The British Empire.....	3	15 hours	
631	History of Greece.....	3	9 hours	
632	History of Rome.....	3	9 hours	
*633	The United States, 1763-1789.....	3	15 hours	
*634	The Civil War and Reconstruction.....	3	15 hours	
635	The Great War.....	3	None	
636	Latin America .....	3	9 hours	
*731	American Diplomacy .....	3	15 hours	

## Political Science

531	American National Government.....	3	6 hours
532	American State Government.....	3	6 hours
637	French Revolution and the Napoleonic Era	3	9 hours
638	Democratic Movement in the Nineteenth Century.....	3	9 hours
551	American Government .....	5	6 hours
*533	National Governments .....	3	15 hours
*534	International Law .....	3	15 hours

\*See page 72.

†See statement.

## HISTORY

151 (152). **MEDIAEVAL AND MODERN HISTORY.**—A course designed to give the student a knowledge of the essential contributions of the ancient world to history, of the organization of Mediaeval society upon the basis of Greco-Roman civilization, and the beginnings of the modern state, the Renaissance, the Reformation, the great religious wars, absolutism, the contest for supremacy on the high seas, the French Revolution, the democratic movements of the nineteenth and twentieth centuries and the Great War. Lectures and recitations three hours a week. Course 151 will be repeated in the spring term.

PROFESSOR MARION.

131 (132) (133). **MEDIAEVAL AND MODERN HISTORY.**—Same as the preceding course, given three times a week throughout the year.

PROFESSOR MARION



153. HISTORY OF THE UNITED STATES SINCE 1850.—A few days will be devoted to special incidents of our earlier history, but the main emphasis will be laid on the developments since 1850, including the Great War and the attempt to organize a permanent peace. The collateral readings will include **current** periodicals. Five hours, spring term.

PROFESSOR THOMAS.

531 (532) (533). HISTORY OF THE UNITED STATES 1776-1910.—After a brief survey of the antecedents of the Revolution, a careful study will be made of the Confederation, the formation and adoption of the Constitution, the party developments, foreign relations, economic developments, and growth of nationalism and democracy. Special attention will be given to the gradual sectionalization of the country over slavery and states rights, the results of the Civil War and Reconstruction, the industrial and social developments of recent times, the growth of democracy, the Great War and the part of the United States in it, and the peace settlement. Prerequisite, History 151 (152) or three years of history in high school. Lectures and recitations three hours a week. No credit given for less than two terms.

PROFESSOR THOMAS.

534 (535) (536). HISTORY OF ENGLAND TO 1910.—A general course treating the political, literary, religious, and economic activities of the English people. The origin and growth of the more important institutions, such as kinship, parliament, court and the church, will be discussed at different times, also the struggle for constitutional, democratic government, especially the great reform of the nineteenth and twentieth centuries, and the movement for social betterment. Brief survey of the British Empire. Lectures and recitations three hours a week. No credit given for less than two terms.

PROFESSOR MARION.

637. FRENCH REVOLUTION AND THE NAPOLEONIC ERA.—France on the eve of the revolution: French political philosophers;

causes and events of the revolution; and the wars of Napoleon. Lectures and recitations three hours a week. Fall term.

PROFESSOR THOMAS,  
ASSISTANT PROFESSOR MARION.

638. DEMOCRATIC MOVEMENT IN THE NINETEENTH CENTURY.—A brief survey of Europe in 1815 will be made, after which the development of constitutional government will be considered; the unification of Italy and Germany; and the present condition of world politics. Lectures and recitations three hours a week. Winter term.

PROFESSOR THOMAS,  
ASSISTANT PROFESSOR MARION.

551. EUROPEAN HISTORY SINCE 1789.—France on the eve of the Revolution; French political philosophers; causes and events of the Revolution; the wars of Napoleon. A brief survey of Europe in 1815 will be made, after which the development of constitutional government will be considered; the unification of Italy and Germany; the Great War and the present condition of world politics. Lectures and recitations five hours a week. Fall and spring term.

ASSISTANT PROFESSOR MARION.

537. ENGLAND UNDER THE TUDORS AND THE STUARTS.—A study of the political, religious, literary, and economic history of England during these two periods. Lectures and recitations three hours a week. (*Not offered in 1919-20*).

ASSISTANT PROFESSOR MARION.

538. THE BRITISH EMPIRE.—While a brief survey of the general history of England through the eighteenth and nineteenth centuries will be made, attention will be devoted mainly to a study of England's colonial history and of the forces that have developed the British Empire of today, including an analysis of the present imperial policy. Lectures and recitations three hours a week with collateral reading. (*Not offered in 1919-20*).

ASSISTANT PROFESSOR MARION.

631. HISTORY OF GREECE.—A course designed to give a more extensive knowledge of the history and institutions of the

Greeks. A general knowledge of the subject is presumed. Lectures and recitations three hours a week.

PROFESSOR THOMAS.

632. HISTORY OF ROME.—A course designed to give a more extensive knowledge of the history and institutions of the Romans. A general knowledge of the subject is presumed. Lectures and recitations three hours a week.

PROFESSOR THOMAS.

633. THE UNITED STATES, 1763-1784.—A study of the colonies in their relation to the mother country, with special reference to the attempt at imperial taxation. Particular attention will be given to the literature of the period as preparing the colonists for separation. The steps leading to the Declaration of Independence, the failure of the Confederation, and the formation and adoption of the Constitution will be studied in detail. Lectures and recitations three hours a week. (*Not offered in 1919-20*).

634. THE CIVIL WAR AND RECONSTRUCTION.—The first part of this course will deal mainly with the events leading up to the war; the second part, with the political, economic, and social phases of the Reconstruction. Lectures and recitations three hours a week. (*Not offered in 1919-20*).

PROFESSOR THOMAS.

535. THE GREAT WAR.—The balance of power, imperial ambitions, nationalism, colonial and commercial rivalries, the race for armaments, the Great War and its results. Lectures and recitations three hours a week. Spring term.

PROFESSOR THOMAS

ASSISTANT PROFESSOR MARION.

536. LATIN AMERICA.—The struggle for independence and the establishment of governments republican in form; industrial and social development in Mexico and the leading states of South America; relations with the United States. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR MARION.

731. AMERICAN DIPLOMACY.—This course will cover the entire period of the history of the United States, giving special

attention to the diplomacy of the Revolution and of the second war with England, the Monroe Doctrine, and subsequent relations with Latin America, arbitration, Asiatic questions and the Great War and the peace settlement. Lectures and recitations three hours a week. Spring term.

PROFESSOR THOMAS.

#### POLITICAL SCIENCE

531. AMERICAN NATIONAL GOVERNMENT.—A basic course for more advanced work in government. Some attention will be given to the organization of our national government and to the work of the co ordinate branches, but most emphasis will be laid upon the work of administration. This course is open to all students who have completed not less than six credit hours in history. Lectures and recitations three hours a week.

PROFESSOR THOMAS.

532. AMERICAN STATE AND LOCAL GOVERNMENTS.—A brief review of the development of American state constitutions, followed by a study of the structure and workings of state governments as organized today and of some of the practical problems now before the states; a brief survey of county and municipal government. Lectures and recitations three hours a week with collateral reading.

PROFESSOR THOMAS.

551. AMERICAN GOVERNMENT.—Substantially the same as the two preceding courses. Offered during the spring term, five hours a week.

PROFESSOR THOMAS.

533. NATIONAL GOVERNMENT.—A study and comparison of the structures and powers of the national governments of the United States and of the leading European nations. Special attention will be given to the place of the federal system in public law. The study will be based on the works of Ogg, Beard, Garner, and the constitutions of the different countries. This course is open only to juniors and seniors. Lectures and recitations three hours a week. Fall term.

PROFESSOR THOMAS.

534. INTERNATIONAL LAW.—A study of the development of international law and of the usages and principles now considered binding on civilized nations. This course is open only to juniors and seniors. Lectures and recitations three hours a week, with considerable outside reading. Winter term.

PROFESSOR THOMAS.

## MATHEMATICS AND ASTRONOMY

PROFESSOR DROKE, PROFESSOR HARDING, EMERITUS ASSOCIATE PROFESSOR DUNN, ASSISTANT PROFESSOR MISER, ASSISTANT PROFESSOR HALPERIN, MISS HUGHES

The courses in this department are designed to meet the requirements of (1) students in the courses in engineering, (2) students who expect to teach mathematics, and (3) students who are interested in mathematics for the sake of the subject itself.

*Requirements for a Major in Mathematics*, fifty credit hours, including courses 154, 155, 156, 234 (235) (236), 531 (532), 541 (542) (543), and 633 (634) (635) or 631 (632), or their equivalent. Students in engineering may elect in addition to the prescribed courses, 537 (538) and 631 (632). Students who are preparing to teach mathematics in the secondary schools must complete Mathematics 154, 155, 156, 234 (235) (236), 541 (542) (543), 633 (634) (635), 534, 535 (536) and Astronomy 151 (152). Students who wish only a general knowledge of the subject may take Mathematics 154, 155, 156, and Astronomy 151 (152).

### COURSES

#### Mathematics

No.	Title	Credit	Prerequisites
51 (52)	Plane Geometry .....	10	None
151 (152)	Plane Geometry [Same as 51 (52)].....	10	None
54	Elementary Algebra .....	5	None
154	Elementary Algebra (Same as 54).....	5	None
155	Solid Geometry .....	5	152
156	Plane Trigonometry .....	5	154
157	College Algebra .....	5	None
158	Solid Geometry and Analytic Geometry .....	5	156

234 (235) (236)	Analytic Geometry . . . . .	9	154, 156
247	Algebra and Plane Trigonometry . . . . .	4	None
251 (252)	Differential and Integral Calculus . . . . .	10	256
256	Analytic Geometry and Algebra . . . . .	5	157, 158
531 (532)	Advanced College Algebra	6	154
541 (542) (543)	Differential and Integral Calculus . . . . .	12	154, 155, 156, 235
534	Teaching of Secondary Mathematics . . . . .	3	154, 155, 156
535 (536)	History of Mathematics . . . . .	6	234 (235) (236)
537 (538)	Elementary Mechanics . . . . .	6	541 (542) (543) or 251 (252)
633 (634) (635)	Theory of Equations . . . . .	9	531 (532)
*631 (632)	Differential Equations . . . . .	6	541 (542) (543) or 251 (252)

### Astronomy

151 (152)	Elementary Descriptive Astronomy . . . . .	10	None
141	The Astronomy of Physiography . . . . .	4	None
531 (532) (533)	Mathematical Astronomy . . . . .	9	Math. 154, 155, 156
*534 (535) (536)	Celestial Mechanics . . . . .	9	Math. 631 (632)

\*See page 72.

Note—Full credit on Mathematics 154 and Mathematics 151 (152) will be given only when they are taken as a part of the student's first ninety-six hours' credit. Half credit only will be given if taken after the student has completed ninety-six hours' credit. No credit will be given if taken after the student has completed 144 hours' credit.

51 (52). PLANE GEOMETRY.—A collegiate treatment of plane geometry designed for students who offer no geometry for entrance. This course may be taken by students in the colleges of Engineering and Agriculture to remove entrance deficiencies. Five hours a week.

ASSISTANT PROFESSOR MISER,  
MISS HUGHES.

151 (152). PLANE GEOMETRY.—Same as 51 (52). For students in the Colleges of Arts and Sciences and Education. Five hours a week.

ASSISTANT PROFESSOR MISER.

54. ELEMENTARY ALGEBRA.—A collegiate treatment of advanced high school algebra, designed for students who offer only one unit in algebra for entrance. This course may be taken by students in the colleges of Engineering and Agriculture to remove entrance deficiencies. Five hours a week.

ASSISTANT PROFESSOR MISER.

154. **ELEMENTARY ALGEBRA.**—Same as 54. For students in the colleges of Arts and Sciences and Education. Five hours a week.

MISS HUGHES.

155. **SOLID GEOMETRY.**—A course in solid geometry, designed primarily for students in the colleges of Arts and Sciences and Education who offer one unit of plane geometry for entrance. Five hours a week.

MISS HUGHES.

156. **PLANE TRIGONOMETRY.**—A course in plane trigonometry, designed especially for students in the colleges of Arts and Sciences and Education who offer one unit of plane geometry for entrance. Five hours a week.

ASSISTANT PROFESSOR MISER.

157. **COLLEGE ALGEBRA.**—A course in college algebra, designed primarily for students in the courses in engineering who offer at least one and one-half units in algebra for entrance. Five hours a week.

ASSISTANT PROFESSOR HALPERIN  
MISS HUGHES.

158. **SOLID GEOMETRY AND ANALYTIC GEOMETRY.**—This course is designed primarily for students in engineering. Five hours a week.

ASSISTANT PROFESSOR HALPERIN  
MISS HUGHES.

234 (235) (236). **ANALYTIC GEOMETRY.**—A course in analytic geometry, designed primarily for students in the College of Arts and Sciences and the College of Education, who offer at least one unit in algebra and one unit in plane geometry for entrance. Three hours a week.

PROFESSOR HARDING,  
ASSISTANT PROFESSOR MISER.

247. **ALGEBRA AND PLANE TRIGONOMETRY.**—A course in algebra and plane trigonometry designed for students in the courses in agriculture, including a study of factoring, fractional equations,



theory of exponents, radicals, and quadratic equations; trigonometric functions, functions of multiple and sub-multiple angles, and solution of triangles. Four hours a week.

ASSISTANT PROFESSOR MISER.

251 (252). DIFFERENTIAL AND INTEGRAL CALCULUS.—A course in differential and integral calculus, designed for students in the courses in engineering. Five hours a week.

ASSISTANT PROFESSOR HALPERIN.

256. ANALYTIC GEOMETRY AND ALGEBRA.—The analytic geometry in this course is a continuation of course 158, and the algebra is a continuation of course 157. Five hours a week.

ASSISTANT PROFESSOR HALPERIN.

531 (532). ADVANCED ALGEBRA.—A course in advanced algebra, designed for students who have taken course 154. Three hours a week.

PROFESSOR DROKE.

541 (542) (543). DIFFERENTIAL AND INTEGRAL CALCULUS.—A course in differential and integral calculus, designed for juniors and seniors in the College of Arts and Sciences. Four hours a week.

PROFESSOR DROKE.

534. THE TEACHING OF SECONDARY MATHEMATICS.—A course designed for prospective high school and elementary school teachers. Three hours a week.

PROFESSOR DROKE.

535 (536). HISTORY OF MATHEMATICS.—Recommended to those who are majoring in mathematics. Three hours a week.

PROFESSOR DROKE.

537 (538). ELEMENTARY MECHANICS.—A study of the application of mathematics to mechanics; the laws of statics and dynamics, forces, motion of particles, friction, work and energy. This course is open to all juniors. Three hours a week.

PROFESSOR HARDING.

633 (634) (635). THEORY OF EQUATIONS.—Three hours a week.

PROFESSOR HARDING.

631 (632). DIFFERENTIAL EQUATIONS.—Three hours a week  
ASSISTANT PROFESSOR MISER.

#### ASTRONOMY

151 (152). ELEMENTARY DESCRIPTIVE ASTRONOMY.—Lectures and recitations three hours a week, with occasional meeting at night for observation. A knowledge of college mathematics is not necessary.

PROFESSOR HARDING.

141. THE ASTRONOMY OF PHYSIOGRAPHY.—An elementary course dealing with those fundamentals of physiography which grow directly out of astronomy. This course is designed especially for students in the College of Education who are preparing to teach high school science. Lectures and recitations four hours a week, with occasional meetings at night for observation.

PROFESSOR HARDING.

531 (532) (533). MATHEMATICAL ASTRONOMY.—Astronomical co-ordinates, parallax, and time, determination of latitude. Three hours a week.

PROFESSOR HARDING.

534 (535) (536). CELESTIAL MECHANICS.—Central forces, potential and attraction of bodies, and the problem of two bodies. Three hours a week.

PROFESSOR HARDING.

#### MILITARY ART

MAJOR HALPINE, \*LIEUTENANT WHEELER, SERGEANT JOHNSON.

Under the provisions of the Act of Congress, approved July 2, 1862, donating public lands for the establishment of colleges where the leading object shall be the practical instruction of the industrial classes in agriculture and mechanic arts, state insti-

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\*Resigned.

tutions which are the beneficiaries of such donations are required to include military art in their course of instruction. An officer of the United States Army is detailed to each such institution to act as professor and head of this department.

The main object of the military instruction given is to qualify college trained men to become officers of infantry, militia, or volunteers. This course of training fits the student for the full duties of citizenship and gives him the normal physical development necessary for his continued well-being through life.

The courses in military art are required of all male students in their freshman and sophomore years and may be elected for credit in their junior and senior years.

#### RESERVE OFFICERS' TRAINING CORPS

The University of Arkansas has complied with the requirements of the War Department and has been officially designated as one of the civil institutions at which shall be maintained units of the senior division of the Reserve Officers' Training Corps.

Eligibility to membership in this corps is limited to students of institutions in which units of such corps are established, who are citizens of the United States, who are not less than fourteen years old, and whose bodily condition indicates that they are physically fit to perform military duty, or will be so upon arrival at military age.

When any member of the senior division of the Reserve Officers' Training Corps has completed two academic years of service in that division, has been selected for further training by the president of the institution and by its professor of military art, and has agreed in writing to continue in the corps for the remainder of his course in the institution, devoting five hours per week to the military training prescribed by the Secretary of War, he will be furnished, at the expense of the United States, commutation of subsistence during the remainder of his service in the corps. This commutation will amount to about eight dollars per month.

The corps of cadets is inspected annually by an officer of the United States Army, detailed for that purpose, and the report of such inspection is transmitted to the Chief of Staff for the information of the Secretary of War.

As soon as practicable, each member of the corps will be furnished free of charge with breeches, cap, coat, leggins, shoes, and cap and collar ornaments.

Each man will receive, actual cost value:

1. Coat wool O. D.	\$9.79
1. Breeches wool O. D.	6.32
1. Shoes russet or marching	4.65
1. Shirt wool O. D.	3.50
1. Overcoat O. D. short	13.56
1. Leggins Pr. canvas	1.05
1. Hat service	2.00
2. Collar ornaments	.07
1. Hat cord	.09
1. Belt	.23
Chevrons	.57

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\$41.83

Additional for those attending summer camps:

2. Breeches cotton O. D.	\$ 3.38
1. Shoes russet or marching	4.65
1. Shirt wool O. D.	3.50
1. Leggins canvas	1.05
1. Hat additional	2.00
1. Hat cord	.09

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\$14.67

Each man will receive in four years property valued

at 4 times \$41.83-----\$167.32

Each man will receive in three months property

valued at 3 times \$14.67----- 44.01

Each man recommended will receive commutation of

subsistence two years or 500 days, at 40 cents per day. 250.00

Each man may receive commutation of subsistence

in kind (not paid in cash) three summers, 135

days, at 40 cents per day----- 54.00

Transportation averages 1000 miles per summer, or

3000 miles for three summers, at 4 cents per mile--- 120.00

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\$621.33

There is the privilege of special technical training in various fields without any tuition charges.

There is an opportunity to obtain a commission as second lieutenant of the regular army for a period not exceeding six months, with allowances for the grade, and with pay at the rate of \$100.00 per month.

The courses of study given below are prescribed by the War Department and are so arranged as to make use of the instructors in other departments of the University.

### COURSES

No.	Title	Credit	Prerequisites
111 (112) (113)	First Year .....	3	None
221 (222) (223)	Second Year .....	6	111 (112) (113)
521 (522) (523)	Third Year .....	6	221 (222) (223)
531 (532) (533)	Fourth Year .....	9	521 (522) (523)

111 (112) (113). FIRST YEAR.—Practical instruction in physical drill; infantry drill, including the school of the soldier, the squad, and the company, and battalion; sighting and aiming drills, and the nomenclature and care of the rifle; fire direction and control; ceremonies; bayonet combat; intrenchments; first aid instructions; range and gallery practice. Theoretical instruction in target practice; military organization; service of security; map reading; and personal hygiene. Theoretical instruction, including lectures on the military policy of the United States and the military obligations of citizenship; service of information; conflict; infantry drill regulations, including the school of the company; camp sanitation for small commands. Lecture one hour, field work two hours a week.

MAJOR HALPINE,  
SERGEANT JOHNSON.

221 (222) (223). SECOND YEAR.—Practical instruction in physical drill; infantry drill, including the school of the battalion; fire direction and control; ceremonies; bayonet combat; intrenchments; first aid instructions range and gallery practice; signaling; collective firing by devices now in use at disciplinary barracks. Theoretical instruction in infantry drill regulations, including the school of the battalion and combats; small arms firing regulations; camp sanitation and camping expedients. Theoretical instruction, including lectures on recent military history; service of information and security by problems in

patrolling, advance guard, rear guard, flank guards, trench and mine warfare, orders, messages, camping expedients, and marches and camps; lectures on the military policy of the United States and the military obligations of citizenship; and map reading. Lectures one hour, field work three hours a week.

MAJOR HALPINE,  
SERGEANT JOHNSON.

321 (522) (523). THIRD YEAR—Practical instruction in the duties of a cadet commissioned officer and non-commissioned officer; and military sketching. Theoretical instruction in minor tactics; field orders; map maneuvers; property accountability and methods of obtaining supplies and equipment; and lectures on the elements of international law; company administration, and lectures on recent military history. Lectures one hour, field work four hours a week.

MAJOR HALPINE,  
SERGEANT JOHNSON.

321 (532) (533). FOURTH YEAR—Practical instruction in the duties of a cadet commissioned officer and non-commissioned officer; and military sketching. Theoretical instruction in tactical problems with small forces, and with all arms combined; map maneuvers; court martial proceedings; the rifle in war; lectures on military history and military policy; lectures on diplomacy and international law, and general principles of strategy, and the psychology of war. Lectures one hour, field work four hours a week.

MAJOR HALPINE,  
SERGEANT JOHNSON.

## PHYSICAL EDUCATION (FOR WOMEN)

MISS WILLIAMS

The purpose of the work in this department is to improve the standard of the general health and to increase the physical efficiency of the young women. A physical examination is made

of each student upon entrance and at such intervals through the years as may seem necessary.

The work is conducted in the indoor gymnasium and during suitable weather on outdoor courts. The uniform consists of a white middy-blouse, black serge bloomers, and gymnasium shoes.

The courses in physical education are required of all women students during their freshman and sophomore years. A maximum of twelve credit hours may be used toward graduation.

### COURSES

No.	Title	Credit	Prerequisites
111 (112) (113)	Elementary Physical Education .....	3	None
211 (212) (213)	Intermediate Physical Education .....	3	111 (112) (113)
511 (512) (513)	Advanced Gymnastics .....	3	111 (112) (113), 211 (212) (213)
514 (515) (516)	Advanced Dancing .....	3	111 (112) (113), 211 (212) (213)
517 (518) (519)	The Teaching of Physical Education .....	3	111 (112) (113), 211 (212) (213)

111 (112) (113). **ELEMENTARY PHYSICAL EDUCATION.**—General gymnastic work, games, and lectures on personal hygiene. Two hours a week.

MISS WILLIAMS.

211 (212) (213). **INTERMEDIATE PHYSICAL EDUCATION**—(1). General gymnastic work, one hour a week; (2) athletic games one hour a week; (3) æsthetic and folk dancing, one hour a week. Students may elect either (1) and (2), or (1) and (3).

MISS WILLIAMS.

511 (512) (513). **ADVANCED GYMNASTICS**—Advanced gymnastic work; fencing, field sports, and outdoor games. Two hours a week.

MISS WILLIAMS.

514 (515) (516). **ADVANCED DANCING**—Two hours a week.

MISS WILLIAMS.

517 (518) (519). **THE TEACHING OF PHYSICAL EDUCATION.**—Theoretical and practical work, designed for prospective public school teachers. Two hours a week.

MISS WILLIAMS.



## PHYSICS

PROFESSOR RIPLEY, MR. BROWN

The courses in this department are designed (1) for students in the courses in engineering, agriculture, chemistry, and home economics, as a part of the required curriculums and (2) for students in other courses who desire a general knowledge of the subject or who wish to prepare for the study of law or medicine, or for teaching or graduate work.

*Requirements for a Major in Physics.* forty-five term hours, including courses 141-2-3; or 241-2-3; 534-5-6; 517-8-9; 531-2-3 or 634-5; 637-8 and 631-2-3. Students who are preparing to teach physics in the secondary schools should complete as a minimum requirement courses 141-2-3; 524-5-6; 517-8-9 and 521-2-3.

COURSES			
No.	Title	Credit	Prerequisites
141 (142) (143)	Experimental Physics .....	12	None
241 (242) (243)	General Physics .....	12	Math. 156
534 (535) (536)	Theoretical Physics .....	9	141 or 241
517 (518) (519)	Laboratory Physics .....	3	141 or 241
531 (532)	Heat .....	4	534
634 (635)	Light .....	4	534
637 (638)	Electrical Measurements .....	4	241 or 534
521 (522) (523)	The Teaching of Physics .....	6	517
631 (632) (633)	Kinetic Theory of Gases ..	9	534, Math. 541
524 (525) (526)	History of Physics .....	6	534
537 (538) (539)	Recent Advances in Physics ..	9	531, 634, and 637

141 (142) (143). EXPERIMENTAL PHYSICS.—A non-mathematical course in physics designed for students who desire to secure a general knowledge of the subject and of its application to everyday life. The experimental and practical phases of the subject are stressed. Lectures, recitations, and experimental demonstrations three hours a week, laboratory work two hours a week.

PROFESSOR RIPLEY,  
MR. BROWN.

241 (242) (243). GENERAL PHYSICS.—A general course in physics, more mathematical than course number 141. Not open to students who have taken course 141. This course is required of all engineering students and is so conducted. The application of physical laws to engineering problems is brought out and the solution of problems of an engineering type is introduced. The

subjects of mechanics, heat, light, and electricity and magnetism are emphasized. Lectures and recitations three hours a week, laboratory work two hours a week.

PROFESSOR RIPLEY,  
MR. BROWN.

534 (535) (536). THEORETICAL PHYSICS.—An advanced course in General Physics dealing with the theory of the subject, the development of formulae, and the application of formulae and laws to the solving of physical problems. Lectures and recitations three hours a week.

PROFESSOR RIPLEY.

517 (518) (519). LABORATORY PHYSICS.—Exercises in the determination of the moment of inertia, of tension, of center of mass, of Young's modulus, of viscosity, of thermal expansion, of heats of fusion and vaporization, of capacity, of high and low potential, of photometry, and of interference of light waves.

PROFESSOR RIPLEY,  
MR. BROWN.

531 (532). HEAT.—A course dealing with thermometry, heats of combustion, specific heats of solids, liquids, and gases, vapor-densities and the laws of thermodynamics. Lectures and recitations two hours a week, laboratory work three hours a week.

PROFESSOR RIPLEY.

634 (635). LIGHT.—A treatment of the modern theory of light with a consideration of the recent advances in this subject of physics. The work deals with the theory of optical instruments, dispersion, diffraction, polarization, etc., of light. Lectures and recitations two hours a week, laboratory work three hours a week.

MR. BROWN.

637 (638). ELECTRICAL MEASUREMENTS.—Calibration of electrical instruments, measurements of high and low resistances, measurements of resistances of conductors and dielectrics, determination of current, of electromotive force, of inductance, and of capacity. Lectures and recitations two hours a week, laboratory work three hours a week.

PROFESSOR RIPLEY.

521 (522) (523). THE TEACHING OF PHYSICS.—Discussions on methods of teaching physics, on text-books, on laboratory manuals, and on relation between class work and laboratory work. This course is designed for prospective high school teachers. Lectures and discussions of assigned reports two hours a week.

PROFESSOR RIPLEY.

631 (632) (633). KINETIC THEORY OF GASES.—A study of the application of the kinetic theory to diffusion and pressure of gases, to viscosity of liquids and gases, and to temperature and specific heats of gases, liquids, and metals. The past fruitfulness and future promise of the theory in invention and discovery will be discussed. Lectures and recitations three hours a week.

MR. BROWN.

524 (525) (526). HISTORY OF PHYSICS.—A critical and historical study of the development of physical science and a consideration of how the general principles have been ascertained, from what sources they take their origin, and how far they may be considered as permanent acquisitions today. Lectures two hours a week.

PROFESSOR RIPLEY.

537 (538) (539). RECENT ADVANCES IN PHYSICAL SCIENCE.—Lectures on the electron theory, on conduction of electricity through gases, on radioactivity, etc. Lectures three hours a week.

PROFESSOR RIPLEY.

## ROMANCE LANGUAGES

§PROFESSOR MARINONI, PROFESSOR MALECOT, §MISS HARGIS,  
MISS FINK

The courses offered in this department are intended to give students an intimate acquaintance with the languages spoken in the principal countries and to stimulate knowledge and appreciation of the literary attainments of the Latin people. In the

higher courses emphasis is laid especially on the study of literature. In order to give students an opportunity to become familiar with the spoken idioms, several of the advanced courses are conducted in the language which forms the object of study.

*Requirements for a Major in Romance Languages.* forty-five term hours to be chosen from the following courses, exact requirements to be arranged with the professor in charge: French 141 (142) (143), 551 (552) (553), 554 (555) (556) and 534 (535) (536); Spanish 141 (142) (143) and 531 (532) (533) and Italian 521 (522) (523); or Spanish 141 (142) (143) and Italian 141 (142) (143) and 531 (532) (533). Major students in the department of Romance Languages, upon completing the required work, are expected to have a fair speaking knowledge of at least one language. They are therefore urged to take in their third year of work the conversation courses offered by the department. Students preparing to teach either French or Spanish in the secondary schools should complete at least thirty six credit hours in the language chosen, and in addition should include a course in teaching modern languages. Such students are urged to do at least one year of practice teaching in the Training High School.

### COURSES

French			
No.	Title	Credit	Prerequisites
141 (142) (143)	Elementary French .....	12	None
551 (552) (553)	French Prose and Poetry.....	15	143
*554 (555) (556)	French Literature of the Seventeenth Century .....	15	553
*534 (535) (536)	French Literature of the Nineteenth Century.....	9	553
*511 (512) (513)	Modern French Poetry.....	3	†
*514 (515) (516)	French Drama .....	3	†
*517 (518) (519)	Historical French Grammar.....	3	†
*521 (522) (523)	Balzac .....	6	†
Italian			
141 (142) (143)	Elementary Italian .....	12	None
531 (532) (533)	Advanced Italian .....	9	143
Spanish			
141 (142) (143)	Elementary Spanish .....	12	None
531 (532) (533)	Advanced Spanish .....	9	143
*531 (532) (533)	Spanish Literature .....	9	533
521 (522) (523)	Conversation and Composition.....	6	533

§ Absent on leave.

† See statement.

\* See page 72.

## FRENCH

141 (142) (143). **FLEMENTARY FRENCH.**—Grammar, reading, dictation, and composition. Pronunciation is carefully taught and oral drill insisted upon. Four hours a week.

MISS FINK.

551 (552) (553). **FRENCH PROSE AND POETRY.**—Composition, sight reading, syntax, and conversation; reading of representative works of modern French authors. Five hours a week.

MISS FINK.

554 (555) (556). **FRENCH LITERATURE OF THE SEVENTEENTH CENTURY.**—A general view of the classic period of French literature. The most important literary productions of the century are read and analyzed. Lectures and recitations in French, with a considerable amount of outside reading. Five hours a week.

MISS FINK.

534 (535) (536). **FRENCH LITERATURE OF THE NINETEENTH CENTURY.**—Lectures and recitations in French, with readings from the leading authors of the Romantic period. Three hours a week.

PROFESSOR MALECOT.

511 (512) (513). **MODERN FRENCH POETRY.**—A study of the evolution of French poetry from 1870 to the present time; new tendencies in poetry and the reaction against Romanticism, as shown in the works of Leconte de Lisle and other Parnassians. Lectures and recitations one hour a week. The permission of the instructor must be secured before registering for this course.

PROFESSOR MALECOT.

514 (515) (516). **FRENCH DRAMA.**—A course dealing with the evolution of the French drama from its origin to the present day. Lectures and recitations in French, with some outside reading. One hour a week. The permission of the instructor must be secured before registering for this course.

PROFESSOR MALECOT.

517 (518) (519). **HISTORICAL FRENCH GRAMMAR.**—Lectures and recitations one hour a week. The permission of the instructor must be secured before registering for this course.

PROFESSOR MALECOT.

521 (522) (523). BALZAC.—A study of the life and works of Balzac. Lectures and recitations two hours a week. The permission of the instructor must be secured before registering for this course.

PROFESSOR MALECOT.

#### ITALIAN

141 (142) (143). ELEMENTARY ITALIAN.—Grammar, composition, dictation, and conversation, four hours a week

PROFESSOR MALECOT.

531 (532) (533). ADVANCED ITALIAN.—Syntax, composition, conversation, and reading of representative modern works. The second semester will be devoted to the study of Dante's *Inferno*. Three hours a week.

PROFESSOR MALECOT.

#### SPANISH

141 (142) (143). ELEMENTARY SPANISH.—Grammar, composition, dictation, conversation, and reading of easy texts, four hours a week.

PROFESSOR MALECOT.

531 (532) (533). ADVANCED SPANISH.—Syntax, composition, conversation, and reading of representative modern works. Class work is conducted largely in Spanish. Three hours a week.

PROFESSOR MALECOT.

531 (532) (533). SPANISH LITERATURE.—Lectures, reports, and reading of standard works. Class work is conducted in Spanish. Three hours a week.

PROFESSOR MALECOT.

521 (522) (523). COMPOSITION AND CONVERSATION.—Two hours a week.

PROFESSOR MALECOT.

# COLLEGE OF EDUCATION

The purpose of the College of Education is to bring together and correlate the forces of the University which contribute to the preparation of educational leaders in teaching and supervision, whether rural, elementary, secondary, or executive.

The curriculum will be based upon the assumption that teachers should have, first of all, and fundamental to all other preparation, a broad and liberal education; second, that they should be the masters of some special subject which they expect to teach; and, third, that this training should be supplemented by professional courses designed to give them a knowledge of the minds of the pupils to be taught and the problems to be met, with a thorough course in practice teaching under experienced critic teachers.

## ADMISSION

For a statement of the entrance requirements and a description of the subjects accepted for entrance see page 34.

## COURSES OF STUDY

The College of Education offers a four-year course leading to the degree of *Bachelor of Science in Education* (B. S. E.), a graduate course leading to the degree of *Master of Science* (M. S.), and special two- and three year courses leading to a teacher's certificate.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION

The candidate must meet the entrance, residence, and registration requirements, and must complete satisfactorily at least two hundred and four term hours in approved courses, with the following restrictions:

1. Prescribed courses as follows: English 131 (132) (133), nine hours; Education and Psychology, forty-eight hours, including Psychology 140, Education 140, 130, 131, and 240; Military Art, nine hours (for men), or Physical Education, six hours (for women).



2. Elective courses to be chosen from the following groups with the restrictions noted below:

Group 1. English, French, German, Greek, Italian, Latin and Spanish.

Group 2. Astronomy, Biology, Chemistry, Geology, Mathematics and Physics.

Group 3. Economics, Education, History, Political Science, Philosophy, Sociology, and Home Economics.

Group 4. Agriculture, Engineering, Fine Arts, Law, Medicine, Military Art, and Physical Education.

a. The candidate may elect not more than sixty hours from any one subject and not more than one hundred and twenty hours from any one group, except by special permission of the dean of the college.

b. The candidate must select, not earlier than the beginning of his sophomore year and not later than the beginning of his junior year, one major subject in which he must complete at least forty-five credit hours and two minor subjects in which he must complete at least twenty-seven and eighteen credit hours, respectively, subject to the approval of the head of the department and the dean of the college. The major subject must be chosen from group 1, 2, or 3 except where a student definitely announces his intention to teach subject matter acquired largely in agriculture, engineering, home economics, or fine arts, in which case it may be chosen from group 4. A description of the major requirements of each department will be found under the departmental statements.

c. The candidate must elect not less than twenty-seven hours from each of the first three groups, except where he chooses his major from group 4.

d. The candidate may elect not more than twenty-seven hours from group 4, except where he chooses his major in that group.

e. The candidate must conform as closely as possible to the following schedule in the distribution of his work.

*Freshman Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 131 (132) (133).....	3	3	3
Psychology 140 .....	4		
Education 130 .....	3		
Education 140 .....		4	
Education 131 .....		3	
Military Art (or) Physical Education.....	1	1	1
*Elective.....	6	6	13
	17	17	17

*Sophomore Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Military Art (or) Physical Education .....	2 or 1	2 or 1	2 or 1
Elective .....	15 or 16	15 or 16	15 or 16
	17	17	17

*Junior Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
*Elective .....	17	17	17

*Senior Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Education 240 .....	4	4	4
*Elective .....	13	13	13
	17	17	17

\*To be chosen with the consent and advice of the candidate's major professor, so as to include not less than ten credit hours in Psychology and Education and so as to meet the prescribed requirements, outlined above.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE

The degree of *Master of Science* is granted for graduate work based on a four-year undergraduate course and a degree of either *Bachelor of Arts* or *Bachelor of Science in Education* from this institution or other institution of equal standing. Before a student can become a candidate for the degree, however, his petition for admission to graduate standing must receive

the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the degree is one academic year. In individual cases, where the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses, except as noted below. The major subject, occupying with the thesis twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be ones in which he has received credit in his undergraduate course for at least eighteen credit hours each.

The admission to candidacy for the Master's degree in the case of men and women of maturity who have clearly demonstrated distinct ability in a special field and whose undergraduate credits would not meet the numerical requirements of the preceding rule, together with, in every case, the choice of a candidate's major and minors, is subject to the approval of the committee, the dean of the college and the major professor.

3. Teachers of Smith-Hughes work having a Bachelor's degree from the University of Arkansas or from another institution of learning of similar grade, and having met the other Federal requirements for Smith-Hughes teaching, shall be eligible for admission to candidacy for the degree of Master of Science.

4. In case of Smith-Hughes teachers proceeding toward the Master's degree, three summers of work in the University and two years of itinerant instruction shall be considered the equivalent of a year's residence work, for the purpose of satisfying the requirements of residence only.

5. Forty-two of the forty-eight hours required of the candidate must be regular class-room work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided that their undergraduate records are satisfactory to the committee and to the dean of the college.

6. A student may be admitted to graduate standing without becoming a candidate for a degree, by permission of the committee and the dean of the college.

### *REQUIREMENTS FOR A TEACHER'S CERTIFICATE*

The teacher's certificate is granted in accordance with the law of the State of Arkansas, which reads:

"That the diploma from the teachers' training department of the University of Arkansas shall be equivalent to a teacher's professional license, which shall entitle the holder to teach in any public school in the State of Arkansas for a period of six years from and after the date of issue. At the expiration of said period such diploma may be converted into a life certificate, provided that the character of the work done by the holder thereof, and his or her moral character, shall meet with the approval of the Superintendent of Public Instruction of the State of Arkansas."

The only degree given by the University of Arkansas which of itself entitles the holder to teach in the schools of this state, or of other states requiring professional preparation of its teachers, is the degree of Bachelor of Science in Education. Graduates with other degrees are required to pass examination for teachers' certificates, unless they also have certificates given by the College of Education for not less than thirty-six hours of professional work, which must include twelve hours of practice teaching under supervision.

A student who intends to take a degree in another college of the University should register in that college. If, in addition, he expects to take the teacher's certificate in the College of Education, he must also be registered in the College of Education during the terms in which he is doing his strictly professional work—Education 130, 131 and 240, as the course is at present arranged. All students are advised to do their practice teaching as late in the college course as possible.

It sometimes happens that the student finds it necessary to engage in teaching after his second year in college. Such student, in order to secure the teacher's certificate at the end of the Sophomore year, must be registered in the College of Education in both the Freshman and Sophomore years. If he

intends eventually to take a degree in some other college, he may also register in that College in the freshman and sophomore years.

Students in other colleges who expect to receive the teacher's certificate at some time in the college course, are advised to consult with the dean of the College of Education not later than the end of the freshman year.

The teacher's certificate is granted to students in the College of Education who have completed the work for their degree, and to those also of its students who have completed one of the following courses: (I) the two-year regular course; (II) the two-year special course in manual training; or (III) the special course in shop work.

## I

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily at least one hundred and two credit hours in approved courses as prescribed in the following courses of study:

*Freshman Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 131 (132) (133).....	3	3	3
Psychology 140 .....	4		
Education 130 .....	3		
Education 140 .....		4	
Education 131 .....		3	
Military Art (or) Physical Education.....	1	1	1
*Elective .....	6	6	13
	<u>17</u>	<u>17</u>	<u>17</u>

*Sophomore Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Education 240 .....	4	4	4
Military Art (or) Physical Education .....	2 or 1	2 or 1	2 or 1
*Elective .....	11 or 12	11 or 12	11 or 12
	<u>17</u>	<u>17</u>	<u>17</u>

\*To be chosen with the advice and consent of the department in which the candidate wishes to secure a recommendation to teach, so as to include not less than ten credit hours in Education and Psychology.

## II

The candidate must meet the entrance, residence, and registration requirements and must complete at least one hundred and two credit hours as outlined in the following course of study:

*Freshman Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Psychology 140	4		
Education 130	3		
Education 140		4	
Education 131		3	
Mathematics S	5	5	5
Mechanic Arts 123 (124) (125)	2	2	2
Civil Engineering 121 (122) (123)	2	2	2
Trade Courses Cb			7
Military Art	1	1	1
	17	17	17

*Sophomore Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 131 (132) (133)	3	3	3
Education 240	4	4	4
Trade Course Ba	3	3	3
Trade Course Db	3	3	3
Drawing 221 (222) (223)	2	2	2
Military Art	2	2	2
Education Elective	3	3	3
	17	17	17

*RECOMMENDATION BUREAU*

The College of Education maintains a Recommendation Bureau for the purpose of placing properly in teaching positions those of its students and graduates whose teaching ability is satisfactory to the faculty and whose major professors concur in this recommendation. Since such recommendations are worthless unless based on personal knowledge, the Bureau manifestly cannot place its services at the disposal of teachers concerning whose teaching ability the members of the staff of critic teachers know nothing. It is still possible to place primary and grade teachers on a certificate given at the close of two years of college

work. But it is not possible to place high school teachers in good positions unless they have their college degrees. Each year there are many times as many requests for teachers as there are graduates to fill them. It is not necessary for graduates to leave the state to secure important positions at good salaries. Students looking forward to teaching in other states should, however, confer with the dean as to the requirements for teaching in such states. In general the requirement is a minimum of twenty-seven term hours after a college course in General Psychology.

### *VOCATIONAL TEACHER TRAINING*

The University of Arkansas has been designated by the Federal government as the institution in which all the teacher training in the State of Arkansas under the Smith-Hughes Act will be done. During the past year a Department of Vocational Teacher Training has been established in the College of Education, and there have been added to the faculty a professor of agricultural education, a professor of education in the trades and industries, a professor of home economics education, and two critic teachers to supervise the practice teaching of students. Other professionally trained critic teachers will be added to the faculty as soon as any considerable body of students is enrolled in the later years of the courses involved.

It is the intention both of the Federal Board and also of the Arkansas Board which will have charge of the Smith-Hughes work that teachers, who prepare themselves for the work by graduation from any one of the courses given below, shall be employed for an entire year rather than for a few months only and shall receive liberal salaries. A certain amount of practical experience will be required as well as college graduation. The courses given below in detail are tentative only and probably will be slightly altered from time to time as experience makes necessary.

It is worthy of note that the vocational training courses planned by the University of Arkansas comprised the first state scheme to be approved by the Federal Board.

Candidates for admission to these courses, all of which lead to the degree of Bachelor of Science in Education, must present



fifteen units of high school work or the equivalent. The teacher training in vocational agriculture will be given only to persons who have had at least two years' vocational agricultural experience, or who are acquiring such experience as a part of their training. Each one of these courses covers four college years and is especially prepared for teachers of these respective vocational subjects. Each course consists of two hundred and four term hours of work, a certain part of which must be in scientific project work in the vocation involved, and thirty-two or thirty-three term hours of professional subjects, including practice teaching.

*THE FOLLOWING PROFESSIONAL COURSES ARE AN  
UNVARYING REQUIREMENT*

Psychology 242	Psychology of Teaching	4 term hours
Education 130	The Teaching Process.....	3 term hours
Education 131	Observation and Curriculum...	3 term hours
Education 240	Practice Teaching .....	12 term hours
Education 250	Principles of Secondary Education.....	5 term hours
Education 220, 233, or Home Economics 341,	Vocational Methods Course.....	2 or 3 term hours
Education 341	Rural Education Sociology .....	3 term hours

*VOCATIONAL TEACHER TRAINING IN TRADES AND  
INDUSTRIES*

Teacher training in trades and industries is given for the purpose of preparing teachers for the various types of work in industrial schools. The requirements for certification in the various lines of work are not the same. The entrance requirements and courses of study are accordingly different, although having much in common.

**ENTRANCE REQUIREMENTS**

*I. For Shop Teachers of Unit Trade Courses.*

Grammar school graduation or its equivalent is required as a minimum educational qualification. In addition, a period of not less than one year beyond a period of apprenticeship recognized by the trade as adequate is required as a minimum of trade contact.

Candidates for admission to this course must satisfy those in charge of Teacher Training in Trades and Industries that

they have the necessary personal qualifications and experience to satisfactorily pursue the course of study.

2. *Teachers of Shop Subjects in General Industrial Schools.*

a. High school graduation or its equivalent.

b. The University will also provide opportunity for persons with grammar school education or its equivalent who have not less than two years of acceptable trade experience, to enter the course, provided they are of mature age and capable of pursuing the course of study.

3. *Teachers of Related Subjects.*

a. High school graduation or its equivalent.

b. The University will also provide opportunity for persons with less than high school education, provided they have the necessary personality and are capable of pursuing the course of study.

COURSES OF STUDY

1. *For Shop Teachers of Unit Trade Courses.*

Those who meet the entrance requirements for this course will be offered a special course which will be featured during the Summer Session, but which may also be taken during the school year. Such courses will require for completion credit in

1. Principles of teaching applied to trade schools.
2. Industrial education.
3. Organization and management.
4. Industrial mathematics.
5. Trade science.
6. Trade drawing.
7. Practice teaching and its prerequisites.

2. *Teachers of Shop Subjects in General Industrial Schools.*

Those who meet the entrance requirements for this group will be required to do not less than six months' practical work in a trade or industry under the direction of an authority from the University, in addition to completing one of the following courses:

a. Any of the Engineering courses leading to the degree of B. M. E., or B. E. E., or B. C. E., plus thirty-two hours in Education, which shall include those subjects relating specifically to trade and industrial education.

b. The completion of the first two years of any of the Engineering courses leading to the degrees of B. M. E., or B. E. E., or B. C. E., plus thirty-two hours in Education, which shall include those subjects relating specifically to trade and industrial education.

c. The completion of a special course which shall include not less than eighteen hours of Shop Work in wood and eighteen in metal, as a minimum requirement for each material; in addition to thirty-two hours in Education, nine hours in Mathematics, sixteen hours in Physics and Chemistry, eight hours in Drawing, and nine in English.

### 3. *Teachers of Related Subjects.*

Those who desire to prepare specifically for this work will be required to complete one of the courses required for teachers of shop subjects in general industrial schools, or its equivalent.

## FOUR-YEAR COURSE IN VOCATIONAL HOME ECONOMICS TRAINING

### *Freshman Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 131 (132) (133).....	3	3	3
Chemistry 141 (142) (143).....	4	4	4
Physics 141 (142) .....	4	4	—
Home Economics 131 (132) (133).....	3	3	3
Art 124 (125) (126).....	2	2	2
Physical Education 111 (112) (113).....	1	1	1
Education 140 .....	—	—	4
	<hr/> 17	<hr/> 17	<hr/> 17

*Sophomore Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Zoology 241 (242) (243) .....	4	4	4
Home Economics 231 (232) (233) ..	3	3	3
Chemistry 241, 242 .....	4	..	4
Physical Education 211 (212) (213) ..	1	1	1
Psychology 242 .....	5	4	..
Elective .....	5	5	5
	17	17	17

*Junior Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 331 (332), 334 .....	3	3	3
Home Economics 234 (235) (236) ..	3	3	3
Home Economics 221 (222) (223) ..	3	2	2
Bacteriology 252 .....	5	..	..
Education 250, 130 .....	..	7	..
Home Economics 340, 341 .....	..	..	8
Economics 340 .....	4	..	..
Elective .....	..	2	1
	17	17	17

*Senior Year*

Subject	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 461 .....	6	..	..
Home Economics 441 (442) (443) ..	4	4	4
Education 240 .....	..	6	6
Home Economics 335 (336) .....	3	3	3
Elective .....	4	4	4
	17	17	17

## FOUR YEAR COURSE IN VOCATIONAL AGRICULTURAL EDUCATION

*Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Botany 141 (142) (143) .....	4	4	4
Chemistry 141 (142) (143) .....	4	4	4
English 131 (132) (133) .....	3	3	3
Plant Propagation (Horticulture 141) ..	4	..	..
Elementary Crop Production (Agron. 141) ..	..	4	..
Project Accounting .....	..	..	4
Elective .....	1	1	1
Military Art .....	1	1	1
	17	17	17

*Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Zoology 143 (144) (145).....	4	4	4
Chemistry 242 .....	..	..	4
Animal Husbandry 242.....	..	..	4
Farm Poultry (Animal Husb. 141).....	..	..	4
English (Argumentation) (533-534).....	3	3	..
Fruit Production (Horticulture 244).....	4	..	..
Dairying (An. Husb. 242).....	..	4	..
Farm Carpentry and Forge.....	..	3	..
Economic Entomology (242).....	4	..	..
Military Art .....	2	2	2
	17	16	18

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Agricultural Engineering .....	..	3	3
Elementary Economics 340.....	4	..	..
Soils, Agron. (241, 242).....	..	4	4
Farm Crops (Agron. 341, 342, 343).....	4	4	4
Psychology of Teaching (242).....	4	..	..
Rural Educational Sociology (330).....	..	3	..
Animal Nutrition (An. Husb. 352).....	..	..	5
Teaching Process (Educ. 130).....	3	..	..
Observation and Curriculum (Educ. 131).....	..	3	..
Elective .....	2	..	..
	17	17	16

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Agricultural Economics 430, 431.....	3	3	..
Principles of Secondary Education (250).....	5	..	..
Farm Management (Agron. 431, 432, 433).....	3	3	3
Principles of Breeding (An. Husb. 451).....	..	..	5
Vocational Agricultural Education (220).....	2	..	..
Practice Teaching (Educ. 240).....	4	4	4
Elective .....	1	7	5
	18	17	17

## DEPARTMENTAL STATEMENTS

## SYMBOLS

The courses are numbered in accordance with the system described on page 72.

## CREDIT HOURS

The number of credit hours allowed in each course is identical with the number of hours of lecture or recitation hours a week through the term; in laboratory, shop, or field work two or three hours is considered as equivalent to one hour of lecture or recitation.

## EDUCATION

PROFESSOR GIVENS, ACTING PROFESSOR GLOTFELTER, PROFESSOR JEWELL, PROFESSOR MATTHEW, PROFESSOR PALMER, PROFESSOR PURDOM, ASSISTANT PROFESSOR CROWLEY, \*ASSISTANT PROFESSOR GRANT, \*ASSISTANT PROFESSOR JORDAN, MISS COWAN, MISS JENKS, MRS. SIMPSON, MISS SPEERSTRA, MISS WARBURTON

*Requirements for a Major in Education*, forty-eight credit hours, including courses Psychology 140, Education 140, 130, 131 and 240.

Psychology 140 should be taken as a preparation for all other courses. Students preparing to teach should complete in addition Psychology 142, Psychology 230 or 240, Education 230 and 132. No student will be recommended for a position in high school who has not had Psychology 231 or Education 250. No student will be recommended for a supervisory position who has not completed Education 132, or 231, or 232, and always 242. As a preparation for the ministry courses 230, 240, 231, and 242 in the department of Psychology are recommended; for the study of law, Psychology 140 and 240 and Philosophy 230 and 231; and for the study of medicine, Psychology 140 and 241.

## COURSES

## Psychology

No.	Title	Credits	Prerequisites
140	General Psychology .....	4	None
141	Advanced Psychology .....	4	See statement
142	Educational Psychology .....	4	140 or 141

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\*Absent on leave.

242	Psychology of Teaching .....	4	140 or 141
143	Experimental Psychology .....	4	140 or 141
*220	Vocational Psychology .....	2	140 or 141
*230	Genetic Psychology .....	3	140 or 141
*240	Social Psychology .....	4	140 or 141
*231	Psychology of Adolescence..	3	140 or 141
*241	Abnormal Psychology .....	4	140 or 141
*243	Psychology of Religion.....	4	140 or 141
120	Psychology of Thinking....	2	140 or 141
121	Psychology of the Emotions ..	2	140 or 141
*551	Psychology of Reasoning .....	5	See statement
<b>Education</b>			
140	History of Education ..	4	None
*230	Philosophy of Education.....	3	Psychology 140 and 141 Education 140 and 130
132	School Management .....	3	140
133	Rural School Management...	3	None
134	School Hygiene .....	3	None
*241	Comparative School Systems.....	4	140
*242	Educational Tests and Measurements.....	4	Psychology 140 or 141, Education 140 or 130
130	The Teaching Process.....	3	140
131	Observation and the Curriculum.	3	140 and 130
240	Practice Teaching.....	12	140, 130, 131
340	Advanced Teaching .....	4	140, 130, 131, 240
*250	Principles of Secondary Education..	5	140, 130, 131
*231	Administrative Principles of Secondary Schools	3	See statement
*232	High School Administration...	3	See statement
150	Primary Methods .....	5	None
120	Methods in Language .....	2	None
121	Methods in Number .....	2	None
122	Methods in Reading.....	2	None
141	Methods in Grammar Grade Subjects.....	4	None
243	Science Teaching .....	4	Advice of Dean
*220	Methods and Materials in Vocational Agriculture .....	2	Advice of Department
*233	Principles of Teaching Applied to Trades Courses.	3	Advice of Department
*234	Organization and Management of Shop Work .....	3	Advice of Department
142	Public School Management .....	4	None
*235	Industrial Education .....	3	140
135	Vocational Guidance for Girls .....	3	None
*330	Rural Educational Sociology .....	3	None
<b>Philosophy</b>			
*230	Logic .....	3	Psychology 140 or 141
*231	Ethics .....	3	Psychology 140 or 141

\*May be taken for graduate credit.

## PSYCHOLOGY

140. GENERAL PSYCHOLOGY.—An introduction to the field of general psychology, dealing with the simpler aspects of mental life. The course is designed to ground the student in the fundamentals of the subject and to enable him to acquire a right attitude toward human behavior in general. Lectures and recitations four hours a week

PROFESSOR JEWELL.



141. **ADVANCED PSYCHOLOGY.**—A treatment of technical, scientific psychology, designed especially for those students who desire subsequently to take the course in the Psychology of the Abnormal, or for those students who are contemplating the study of medicine. Emphasis will be given to the study of the psycho-physical equipment of the human being, and the fundamental principles of psycho-physical behavior will be stressed. Transferred credit for high school psychology will not admit to this course, which rather than 140 should be taken if course 241 is to follow. Lectures and recitations four hours a week.

**ASSISTANT PROFESSOR CROWLEY.**

142. **EDUCATIONAL PSYCHOLOGY.**—A consideration of the following topics of vital importance to the teacher: sources of interest, instincts, habits, moral training, memory, thinking, attention, imagination, and "transfer of training." Lectures and recitations four hours a week.

**ASSISTANT PROFESSOR CROWLEY.**

242. **PSYCHOLOGY OF TEACHING.**—A special course for students in the various Smith-Hughes courses, which will deal with the topics usually studied in General Psychology, but always with reference to the learning process. It will be very practical and the applications of the laws of psychology to teaching will be stressed in connection with every chapter. Lectures and recitations four hours a week.

**PROFESSOR JEWELL.**

143. **EXPERIMENTAL PSYCHOLOGY.**—The purpose of this course is to acquaint the student with the experimental method and its technique and to give him some first-hand information concerning the laws of psychology. Such problems in the learning process will be experimented upon which have a direct bearing on sensory motor and perceptual learning, and on memory, imagination, reasoning, etc. Prerequisite, General Psychology. Lectures and laboratory four hours a week.

**ASSISTANT PROFESSOR CROWLEY.**

220. **VOCATIONAL PSYCHOLOGY.**—Some attention will be given to the history of the more important vocations and to the manner in which selections have in the past been made for them.

There follows a complete study of the principal occupations and of the peculiar needs to be met by those attempting to fill them, with due emphasis on the methods now employed in determining the fitness of these individuals for the different professions. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR CROWLEY.

230. GENETIC PSYCHOLOGY.—An intensive study of the development of the mind from childhood to adolescence with a consideration of the arguments for and against the recapitulation theory. In studying the principles of child psychology a careful interpretation is made of influences in their bearing upon education in the home and in the school. Lectures and recitations three hours a week. (*Not offered in 1919-1920*).

PROFESSOR JEWELL.

240. SOCIAL PSYCHOLOGY.—A study of public opinion, custom, imitation, psychology of leadership, conflict, discussion, compromise, mob mind, social will, communication and the crowd. This course will give an insight into present social problems by showing how consciousness has been developed in home, school, neighborhood, and society. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR CROWLEY.

231. PSYCHOLOGY OF ADOLESCENCE.—A study of the important physical, mental, and moral changes which are natural to adolescence, of special interest to all who have to deal with boys and girls of high school age. Attention will be given to laying the foundation for the pedagogy of secondary instruction. Lectures and recitations three hours a week. Offered each Summer Term.

PROFESSOR JEWELL.

241. PSYCHOLOGY OF THE ABNORMAL.—A treatment of the psycho-physical conditions and mental phenomena of illusions, hallucinations, dreams, sleep, automatisms, somnambulism, hypnotism, suggestion, dissociation, double and multiple personalities, and the insanities proper. Open only to juniors and seniors, who must have had at least course 140 or 141. High school psychology will not be accepted for admission into this

course. Lectures, discussions, and reports four hours a week throughout one semester.

PROFESSOR JEWELL.

243. **PSYCHOLOGY OF RELIGION.**—This course is presented from the standpoint of the growth of religious consciousness in the individual rather than in the race. The treatment is two-fold. After a thorough consideration of the various phases of conversion, the same topics are studied again as elements of a spontaneous religious development. Lectures and recitations four hours a week.

ASSISTANT PROFESSOR CROWLEY.

120. **PSYCHOLOGY OF THINKING.**—This course deals with the kinds of situations in which thinking arises, in what the process consists, and how it is related to the various practical activities of life, educational, social, scientific, etc., taking a critical attitude toward the abstract and empirical methods, but emphasizing in a constructive way the concrete and scientific methods. This is an undergraduate and hence introductory course, but can be made equal to a graduate course by additional assigned work. Prerequisite, Psychology 140. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR CROWLEY.

121. **PSYCHOLOGY OF EMOTIONS.**—This course deals with the various conceptions of the emotions, such as that of the "Common Sense" school, Darwin, Ribot, James-Lange, and the more recent views. Finally those principles are developed which are most effective in the explanation of emotional experiences. Prerequisite, General Psychology. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR CROWLEY.

551. **PSYCHOLOGY OF REASONING.**—This is strictly a graduate course only, in which is taken up the modern literature concerning the investigations into the higher thought processes. The permission of the instructor is necessary for admission. Required readings, seminar work, thesis, and recitations equivalent to five hours a week.

ASSISTANT PROFESSOR CROWLEY.

## EDUCATION

140. HISTORY OF EDUCATION.—Educational tendencies rather than men will be the content of this course. Stress will be laid upon the connection between educational theory and actual school work in its historical development. Lectures and recitations four hours a week.

PROFESSOR JEWELL.

230. PHILOSOPHY OF EDUCATION.—Education considered from the standpoint of (1) biology, (2) neurology, (3) psychology, (4) anthropology, and (5) sociology; representative topics: instinct, heredity, habit, culture-epochs, individual differences, imitation, suggestion, training and memory, imagination, emotions, will, senses, motor activities and moral nature, formal discipline, educational values, social education. Lectures and recitations three hours a week.

PROFESSOR JEWELL.

132. SCHOOL MANAGEMENT.—A study of the qualifications of the teacher, grading and promotion, recitation, discipline, study and preparation, school incentive, and the school and the community, designed for prospective grade school teachers. Text-book, lectures, and references, three hours a week.

PROFESSOR JEWELL.

133. RURAL SCHOOL MANAGEMENT.—This course is designed to make both the aim and methods of conducting a rural school very definite. It is designed especially for those rural teachers who have had little opportunity to see better schools than their own. The enrichment of the life of the country child will be kept in mind, and topics such as plays and games, study program, agriculture in the school, and the problems relating especially to the rural school, will be considered. Text-book, lectures, and references, three hours a week. Offered each Summer Term.

PROFESSOR JEWELL.

134. SCHOOL HYGIENE.—Problems of school hygiene, including heating, lighting, and ventilating, school diseases and medical inspection of schools, and hygiene of various school activities. Text-book, lectures, and references, three hours a week.

PROFESSOR JEWELL.

241. **COMPARATIVE SCHOOL SYSTEMS.**—A study of the outstanding features of the school systems of France, Germany, England, Denmark, Switzerland and the United States. This course is planned for those interested in the working out of the curriculum and a better supervision of the schools. The changes in education that the Great War has brought to England and Germany, and its probable effect on the United States, are largely emphasized. Text-book, lectures and references. four hours a week.

PROFESSOR JEWELL.

242. **EDUCATIONAL TESTS AND MEASUREMENTS**—The critical study of scientific methods employed in measuring school room instruction. Special attention is given to the consideration of standard tests and scales for the measuring of educational attainments together with the technique of applying these to educational products. Practice will be given in applying tests in oral and silent reading, spelling, penmanship, comprehension, arithmetic, English composition, and algebra. Four hours a week.

PROFESSOR JEWELL.

130. **THE TEACHING PROCESS**—This course deals with the scientific principles underlying teaching rather than with details of device and method. A careful study of this course should do much toward eliminating the waste of time and energy often involved in the work of the school. Lectures and recitations three hours a week.

PROFESSOR PURDOM.

ACTING PROFESSOR GLOTFELTER.

131. **OBSERVATION AND THE CURRICULUM.**—Observations and discussions of recitations in elementary and secondary school work with considerable attention given to working out a suitable course of study. Lectures and recitations three hours a week.

PROFESSOR PURDOM.

ACTING PROFESSOR GLOTFELTER.

240. **PRACTICE TEACHING.**—Daily teaching for one period in the Training School in practical application of the principles of instruction. Teachers' meeting one hour a week.

PROFESSOR PURDOM,  
ACTING PROFESSOR GLOTFELTER,  
MRS. SIMPSON,  
MISS JENKS,  
MISS WARBURTON.

249. **ADVANCED TEACHING.**—An additional semester of practice teaching, offered for those advanced students who desire to gain greater proficiency in the technique of class room procedure and management. This course should not be elected without the advice of the head of the department.

PROFESSOR PURDOM,  
ACTING PROFESSOR GLOTFELTER.

250. **PRINCIPLES OF SECONDARY EDUCATION.**—A course dealing with the development and nature of the secondary school as we have it today, and with the fundamental aims of secondary education; the relation of secondary education to elementary and higher education; causes of retardation and elimination of pupils; purpose and relative importance of the different subjects in the program of studies; and the fundamental principles of organization and management in so far as they affect the work of the teacher. For prospective high school teachers. Textbook, references, lectures and discussions, five hours a week.

PROFESSOR PURDOM.

251. **ADMINISTRATION OF COUNTY AND CITY SCHOOLS.**—The subjects treated in this course include the educational needs of the county and city; the financial support of the schools; distribution of responsibility and authority among principals, superintendent and board of education; and a comparison of representative school systems. For prospective principals and superintendents. Prerequisite: Education 101, 121, or in the case of teachers of wide experience, the permission of the instructor. Textbook, lecture, discussions, and thesis, three hours a week.

PROFESSOR PURDOM.



**232. HIGH SCHOOL ADMINISTRATION.**—This course deals with the classification, grading, and promotion of pupils; discipline; finances; direction of "Student Activities," relations with private organizations; and the responsibility and authority of teachers, heads of departments, supervisors, and principals. For prospective high school teachers and principals. Prerequisite, Education 130, 131; or in the case of teachers of wide experience, the permission of the instructor. Textbook, references, lectures, and discussions three hours a week.

PROFESSOR PURDOM.

**150. PRIMARY METHODS.**—A study of the guiding principles that determine in general what the primary program should include. Methods of teaching the various branches of the primary curriculum are considered and observation of classwork in the Training School through the fourth grade is included. Textbook, lectures and observation, five hours a week.

MRS. SIMPSON.

**120. METHOD IN LANGUAGE.**—Through stories, games, pictures, and good literature language teaching will be developed of a type that appeals to all healthy-minded children. They will be led to express themselves effectively as they are brought to observe and imitate proper forms of expression, both oral and written. Lectures and recitations two hours a week.

MRS. SIMPSON.

**121. METHODS IN NUMBER.**—This course is planned for teachers and supervisors of arithmetic in the elementary school. Topics: Number experience of the child; the fundamental operations; denominate numbers; factoring; percentage; fractions, value and place of drill work; course of study; lesson plans; arithmetic in its relation to social and industrial life; arithmetical tests; methods of teaching; supervision of arithmetic. Lectures and recitations two hours a week.

MRS. SIMPSON.

**122. GRAMMAR GRADE METHODS IN READING.**—This course aims to equip public school teachers in the methods of successful teaching of reading in the grammar grades. Special emphasis will be laid upon the actual processes of securing good reading, questioning in the reading class, standards of excellence, read-



ing directions, comparison, cross parallelism, dramatization, silent reading, tests, etc. Lesson plans and observation will be required. The work given in this course will be intensely practical and of such a nature that it may be used by any teacher in the common schools. Lectures and recitations two hours a week.

MISS WARBURTON.

211. **METHOD IN GRAMMAR GRADE SUBJECTS.**—A consideration of methods in geography, history, and civics; organization of content of these subjects; working out courses and units of study; lesson plans; observation in demonstration school; review of textbooks and teachers' reference books; teaching children to study; correction of subjects; adaptation of educational psychology to methods of teaching. Lectures and recitations four hours a week.

MISS WARBURTON.

213. **SCIENCE TEACHING.**—A course designed for students who are planning to teach one or more of the natural sciences in the high schools. An attempt will be made to show, in a practical way, how the results of experimental and educational psychology may be applied to the teaching of science. A close study will be made of the fundamental principles and methods of the teaching of the several sciences in the high school curriculum. Especial attention will be given to the application of these principles and the "scientific method" in the teaching of chemistry, physics, biology, and general science. Lectures and recitations four hours a week.

PROFESSOR HALE.

220. **METHODS AND MATERIALS IN VOCATIONAL AGRICULTURE.**—A study of the specific problems that confront the teacher of Agriculture. History of the Smith-Hughes movement; selection of subject matter suited to local conditions; laboratory, field and home projects; laboratory and library equipment; use and management of school farm; community and extension work. Lectures with references and recitations two hours a week.

PROFESSOR MATTHEW.

233. **PRINCIPLES OF TEACHING APPLIED TO TRADE COURSES.**—This course includes a careful study of the principles which underlie trade analysis, as well as a study of the fundamental

principles underlying teaching and their special application to Industrial Education. Practical problems in trade analysis, courses of study and the method of presentation of subject matter will form an essential part of the course. Lectures and recitations three hours a week.

PROFESSOR GIVENS.

234. ORGANIZATION AND MANAGEMENT OF SHOP WORK.—Careful consideration is given to the organization and administration under the Smith-Hughes Act. The questions of equipment, supplies, records and marking of student's work, handling of classes, etc., will be discussed. Lectures and recitations three hours a week.

PROFESSOR GIVENS.

142. PUBLIC SCHOOL MUSIC.—A course preparatory to teaching music in the public schools. Two meetings each week are given to sight reading and one to a careful study of the methods of teaching the subject to children.

MISS JENKS.

235. INDUSTRIAL EDUCATION.—A study of the meaning and significance of industrial education. Consideration will be given to Federal and State legislation affecting industrial education, the policies of the Federal Board for Vocational Education, as well as the development of the movement. Lectures and recitations three hours a week.

PROFESSOR GIVENS.

135. VOCATIONAL GUIDANCE FOR GIRLS.—A study of woman's work in the world in order to enable girls to discover and develop their powers for service and to help them to make the most of their abilities and opportunities. This course should enable young teachers to help the boys and girls with whom they come into contact to make an intelligent choice of their life work. Lectures and recitations three hours a week.

MRS. SIMPSON.

330. RURAL EDUCATIONAL SOCIOLOGY.—This course aims to give a sympathetic insight into the needs and problems of the rural resident. Existing institutions for rural betterment will be examined and appraised. Vital rural problems will be discussed

and remedial measures proposed. Such topics as rural surveys, the character of the rural population, and rural institutions, including rural schools, churches, Granges, social center activities, co-operative associations, rural credits machinery, and state and county fairs, will be taken up in this course. Lectures and recitations three hours a week.

PROFESSOR MATTHEW.

Zoology 533, Biology Teaching, see page 80.

English 745, Teaching of English, see page 68.

Mathematics 534, Teaching of Mathematics, see page 120.

Physics 521 (522) (523), Teaching of Physics, see page 129.

Home Economics 341, Home Economics Methods. See page

212.

#### PHILOSOPHY

220. LOGIC - The application of logic to the practical problems of everyday life, including a careful study of inductive and deductive reasoning, with special reference to argumentation and debate. This course is destined to give a foundation for future philosophical study. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR CROWLEY.

231. ETHICS - This course, after some attention to the growth of ethics in history, will confine itself largely to helping the student acquire better methods of estimating and controlling conduct. Studies will be made of the moral problems that have confronted people from primitive times to the present, and of comparisons between individual and group morality. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR CROWLEY.

# COLLEGE OF ENGINEERING

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The purpose of the courses in this college is to prepare young men for the profession of engineering. The value of the training that is acquired in a university course is recognized by railway officials, manufacturers, municipal, state, and federal authorities. The demand in industrial and engineering fields throughout the country is for college graduates.

The graduates of the College of Engineering of the University of Arkansas are scattered over the entire world, occupying positions of trust in foreign lands, in the service of the United States government, in large manufactories, and in state and municipal service, or building for themselves reputations as professional engineers.

## ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance, see page 35.

## COURSES OF STUDY

The College of Engineering offers through its various departments four-year courses leading to the degrees of *Bachelor of Chemical Engineering* (B. Ch. E.), *Bachelor of Civil Engineering* (B. C. E.), *Bachelor of Civil Engineering in Highways* (B. C. E. in Highways), *Bachelor of Electrical Engineering* (B. E. E.), *Bachelor of Mechanical Engineering* (B. M. E.), and *Bachelor of Mining Engineering* (B. Mi. E.); graduate and professional courses leading to the degrees of *Chemical Engineer* (Ch. E.), *Civil Engineer* (C. E.), *Electrical Engineer* (E. E.), and *Mechanical Engineer* (M. E.); and special one-year courses leading to a certificate.

Candidates for bachelors' degrees in engineering must meet the entrance, residence, and registration requirements, and must complete satisfactorily two hundred sixteen term hours as outlined in the following courses of study.

Elective courses will not be given unless as many as five students register for them.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF CHEMICAL ENGINEERING

## *Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....	4	4	4
English 141 (142) (143).....	4	4	4
Mathematics 157.....	5	—	—
Mathematics 156.....	—	5	—
Mathematics 158.....	—	—	5
Drawing 121 (122) (123).....	2	2	2
Mechanic Arts 121 (122) (123).....	2	2	2
Military Art 111 (112) (113).....	1	1	1
	18	18	18

## *Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256.....	5	—	—
Mathematics 251 (252).....	—	5	5
Physics 241 (242) (243).....	4	4	4
Drawing 221 (222) (223).....	2	2	2
Chemistry 251, 254 (255).....	5	5	5
Military Art 221 (222) (223).....	2	2	2
	18	18	18

## *Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 354 (355) or 651, 652.....	5	5	—
Chemistry 359.....	—	—	5
Civil Engineering 251.....	5	—	—
Experimental Engineering 232.....	—	3	—
Experimental Engineering 225.....	—	2	—
Electrical Engineering 241.....	—	—	4
Electrical Engineering 211.....	—	—	1
*Elective.....	8	8	8
	18	18	18

## *Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 434, 435 (436).....	3	3	3
Chemistry 451 (452).....	5	5	—
Heat Power Engineering 341 (342) (343).....	4	4	4
*Elective.....	6	6	11
	18	18	18

\*All electives must be chosen with the consent of the head of the Department of Chemistry and the Dean of the College of Engineering. Of these electives 13 hours must be chosen from other courses in chemistry and at least 9 hours in English or a foreign language.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF CIVIL ENGINEERING

Course	<i>Freshman Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....	4	4	4	4
English 141 (142) (143).....	4	4	4	4
Mathematics 157.....	5	..	..	..
Mathematics 156.....	..	5	..	..
Mathematics 158.....	..	..	..	5
Drawing 121 (122) (123).....	2	2	2	2
Mechanic Arts 121 (122) (123).....	2	2	2	2
Military Art 111 (112) (113).....	1	1	1	1
	18	18	18	18

Course	<i>Sophomore Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256.....	5	..	..	..
Mathematics 251 (252).....	..	5	5	5
Civil Engineering 251 (256).....	5	5	5	..
Physics 241 (242) (243).....	4	4	4	4
Drawing 221 (222) (223).....	2	2	2	2
Civil Engineering 223.....	..	..	..	2
Civil Engineering 233.....	..	..	..	3
Military Art 221 (222) (223).....	2	2	2	2
	18	18	18	18

Course	<i>Junior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
H. P. Engineering 341 (342) (343).....	4	4	4	4
Civil Engineering 321 (322) (323).....	2	2	2	2
Civil Engineering 324 (325) (326).....	2	2	2	2
Civil Engineering 331 (332) (333).....	3	3	3	3
Geology 331.....	3	..	..	..
Experimental Engineering 233, 225.....	..	5	..	..
Civil Engineering 343.....	..	..	..	4
*Elective.....	4	2	2	3
	18	18	18	18

Course	<i>Senior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Civil Engineering 441 (442).....	4	4	4	..
Civil Engineering 421 (422).....	2	2	2	..
Civil Engineering 443.....	..	..	..	4
Civil Engineering 431.....	3	..	..	..
Civil Engineering 432.....	..	3	3	..
Civil Engineering 436 (437).....	3	3	3	..
Civil Engineering 438.....	..	..	..	3
Civil Engineering 433.....	3	..	..	..
Civil Engineering 439.....	..	3	3	..
Civil Engineering 434.....	..	..	..	3
Electrical Engineering 241, 211.....	..	..	..	5
*Elective.....	3	3	3	3
	18	18	18	18

\*To be chosen with the advice and consent of the candidate's major professor.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF CIVIL ENGINEERING IN HIGHWAYS

Course	<i>Freshman Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....		4	4	4
English 141 (142) (143).....		4	4	4
Mathematics 157 .....		5	..	..
Mathematics 156 .....		..	5	..
Mathematics 158 .....		..	..	5
Drawing 121 (122) (123).....		2	2	2
Mechanic Arts 121 (122) (123).....		2	2	2
Military Art 111 (112) (113).....		1	1	1
		18	18	18

Course	<i>Sophomore Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256 .....		5	..	..
Mathematics 251 (252) .....		..	5	5
Physics 241 (242) (243).....		4	4	4
Drawing 221 (222) (223).....		2	2	2
Electrical Engineering 241, 211.....		..	..	5
Military Art 221 (222) (223).....		2	2	2
		18	18	18

Course	<i>Junior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
H. P. Engineering 341 (342) (343).....		4	4	4
Civil Engineering 321.....		2	..	..
Civil Engineering 324.....		2	..	..
Civil Engineering 331 (332).....		3	3	..
Geology 141 (142) (143).....		4	4	4
Geology 331 .....		3	..	..
Chemistry .....		..	5	5
*Elective .....		0	2	2
		18	18	18

Course	<i>Senior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Civil Engineering 441 (442).....		4	4	..
Civil Engineering 421 (422).....		2	2	..
Civil Engineering 444 .....		..	..	4
Civil Engineering 436 (437).....		3	3	..
Civil Engineering 433 .....		3	..	..
Civil Engineering 426.....		2	..	..
Chemistry 251 (252) .....		..	..	4
Civil Engineering 439 .....		..	3	..
Civil Engineering 434 .....		..	..	3
Civil Engineering 435.....		..	..	3
*Elective .....		4	1	4
		18	18	18

\*1 hour chosen from the approved list of the candidate's major professor.



# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ELECTRICAL ENGINEERING

## *Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....	4	4	4
English 141 (142) (143).....	4	4	4
Mathematics 157 .....	5	..	..
Mathematics 156 .....	..	5	..
Mathematics 158 .....	..	..	5
Drawing 121 (122) (123).....	2	2	2
Mechanic Arts 121 (122) (123).....	2	2	2
Military Art 111 (112) (113).....	1	1	1
	18	18	18

## *Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256 .....	5	..	..
Mathematics 251 (252).....	..	5	5
Physics 241 (242) (243).....	4	4	4
Drawing 221 (222) (223).....	2	2	2
Civil Engineering 251 .....	5	..	..
Experimental Engineering 232, 225.....	..	5	..
Electrical Engineering 241, 211.....	..	..	5
Military Art 221 (222) (223).....	2	2	2
	18	18	18

## *Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Heat Power Engineering 341 (342) (343).....	4	4	4
Electrical Engineering 341 (342) 343.....	4	4	4
Electrical Engineering 311 (312) 313.....	1	1	1
Electrical Engineering 314 (315) (316).....	1	1	1
Heat Power Engineering 331 (332) (333).....	3	3	3
*Elective .....	5	5	5
	18	18	18

## *Suggested Electives:*

Experimental Engineering 321 (322) (323).....	2	2	2
English 331 (332) (333).....	3	3	3
Military Art 521 (522) (523).....	2	2	2
Physics 531 (532).....	3	3	..
Chemistry 231 (232).....	3	3	..
French 141 (142) (143).....	4	4	4
Spanish 141 (142) (143).....	4	4	4
Experimental Engineering 322.....	..	2	..

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Electrical Engineering 431 (432) (433).....	3	3	3
Electrical Engineering 411 (412) (413).....	1	1	1
Electrical Engineering 414 (415) (416).....	1	1	1
Heat Power Engineering 451 .....	5	..	..
Electrical Engineering 417 (418) (419).....	1	1	1
Electrical Engineering 451 .....	..	5	..
Civil Engineering 434.....	..	..	3
Economics 436 .....	..	..	3
*Electives .....	7	7	6
	15	18	18

*Suggested Electives:*

Electrical Engineering 441 (442) (443).....	4	4	4
Electrical Engineering 434, 435.....	3	..	3
Military Art 531 (532) (533).....	3	3	3

\*To be chosen with the advice and consent of the candidate's major professor.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING

*Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143) .....	4	4	4
English 141 (142) (143).....	4	4	4
Mathematics 157 .....	5	..	..
Mathematics 156 .....	..	5	..
Mathematics 158 .....	..	..	5
Drawing 121 (122) (123).....	2	2	2
Military Art 121 (122) (123).....	2	2	2
Military Art 111 (112) (113).....	1	1	1
	18	18	18

*Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256 .....	5	..	..
Mathematics 251 (252).....	..	5	5
Civil Engineering 251.....	5	..	..
Experimental Engineering 225, 232.....	..	5	..
Electrical Engineering 241, 211.....	..	..	5
Physics 241 (242) (243) .....	4	4	4
Drawing 221 (222) (223).....	2	2	2
Military Art 221 (222) (223).....	2	2	2
	18	18	18

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Heat Power Engineering 341 (342) (343).....	4	4	4
Electrical Engineering 341 (342).....	4	4	..
Electrical Engineering 311 (312).....	1	1	..
Experimental Engineering 321 (322) (323).....	2	2	2
Civil Engineering 343 .....	..	..	4
Drawing 341 .....	4	..	..
Heat Power Engineering 344 (345)....	..	4	4
Heat Power Engineering 331 (332) (333)..	3	3	3
*Elective .....	..	..	1
	18	18	18

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Heat Power Engineering 451, 452.....	5	5	..
Economics .....	..	..	3
Experimental Engineering 344, 345.....	4	4	..
Experimental Engineering 423, 437.....	..	..	5
Experimental Engineering 347 (348).....	..	4	4
Civil Engineering 434.....	..	..	3
Thesis .....	4	..	..
*Elective .....	5	5	3
	18	18	18

\*To be chosen with the advice and consent of the head of the department.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MINING ENGINEERING

*Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....	4	4	4
English 141 (142) (143).....	4	4	4
Mathematics 157 .....	5	..	..
Mathematics 156 .....	..	5	..
Mathematics 158 .....	..	..	5
Civil Engineering 121 (122) (123).....	2	2	2
Mechanic Arts 121 (122) (123).....	2	2	2
Military Art 111, (112) (113).....	1	1	1
	18	18	18

*Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Mathematics 256 .....	5	..	..
Mathematics 251 (252) .....	..	5	5
Geology 141, 142 (143) .....	4	4	4
Physics 241 (242) (243) .....	4	4	4
Drawing 221 (222) (223) .....	2	2	2
Military Art 221, (222) (223) ..	2	2	2
	17	17	17

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Civil Engineering 251 (256) .....	5	5	..
Electrical Engineering 241, 211 .....	..	..	5
Geology 231, 232 (233) .....	3	3	3
Geology 531 (532) .....	3	3	..
Chemistry 251 (254) (255) .....	5	5	5
Mining 321 (322) (323) .....	2	2	2
*Elective .....	..	..	3
	18	18	18

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Geology 334 .....	3	..	..
Geology 337, 338 .....	..	3	3
Mining 431 .....	3	..	..
Heat Power Engineering 341 (342) (343) .....	4	4	4
Mining 434 .....	..	3	..
Metallurgy 436 .....	3	..	..
Metallurgy 428 .....	..	..	2
Chemistry 533 .....	..	..	3
*Elective .....	6	9	7
	19	19	19

\*To be chosen with the advice and consent of the candidate's major professor.

### REQUIREMENTS FOR THE GRADUATE AND PROFESSIONAL DEGREES IN ENGINEERING

The graduate degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer* and *Mechanical Engineer* are granted to students who have completed the required undergraduate course and, in addition, at least one year of graduate work in residence. This graduate work must include one major subject, based on

the undergraduate course pursued, and two minor subjects, one or both of which must be closely related to the major subject. The candidate must complete not less than forty-five term credit hours in approved courses and must submit an acceptable thesis in his major subject presenting the results of original research.

The professional degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer*, and *Mechanical Engineer* are conferred upon graduates of the University of Arkansas who have been in successful practice of their profession for at least three years, two of which must have been done after receiving the bachelor's degree. The candidate must have been in responsible charge of work as principal or assistant for at least one year. In addition to this he must present an acceptable thesis giving the results of original research.

The candidate must submit, in writing, to the Committee on Scholarship of the College of Engineering, a statement of his professional record, the names of at least three references, and the subject of his thesis, not later than January 1 of the college year in which the degree is sought. The completed thesis must be in the hands of the Committee on Scholarship not later than May 20, of the same year.

### ONE YEAR TRADES COURSE IN ENGINEERING

The following course in engineering is offered to students who have at least a grammar school education and who desire to better prepare themselves for advancement in the trades or who desire to become familiar with the operation, care, and repair of some line of machinery. No credit in these courses will be allowed toward an engineering degree. The course is intended to give the student a working knowledge of steam, gas, and electrical machinery, in addition to his shop training.

The course is divided into three terms; any one term may be taken separately.

### COURSE OF STUDY

..

#### Fall Term

		HOURS	
		Recitation	Practice
(41)	Steam Boilers .....	4	4
(44)	Elementary Electricity .....	4	4
(11)	Drawing .....	..	4
(20)	Shop Work .....	..	8

*Winter Term*

		HOURS	
		Recitation	Practice
(42)	Steam Engines .....	4	4
(45)	Direct Current Machinery.....	4	4
(12)	Drawing .....	..	4
(20)	Shop Work .....	..	8

*Spring Term*

		HOURS	
		Recitation	Practice
(43)	Gas Engines .....	4	4
(46)	Alternating Current Machinery.....	4	4
(13)	Drawing .....	..	4
(20)	Shop Work .....	..	8

The above outline is not a fixed course, but indicates the amount of work required. Substitutions may be made by consent of the instructor concerned and the Dean.

## COURSE IN AUTOMOBILE MECHANICS

During the school year four courses of eight weeks each will be offered in Automobile Mechanics. These courses are for the automobile owner, garage man, farm tractor or truck operator, and will consist of seven hours of practical work and one hour of lecture work a day.

The course will be sufficiently flexible to meet the needs of students of various degrees of proficiency. Those students who have had one or more years of practical experience can take advanced work in the various divisions, while elementary instruction will be given to those whose knowledge is limited. The lectures accompanying the courses are not technical and do not require a knowledge of mathematics.

A tuition fee of \$300.00 will be charged. This fee will include all necessary expenses connected with the course. The University will furnish materials and tools. The student will pay for his own text books, board, lodging, and personal expenses.

*Description of Course*—The course will be divided into four parts as follows:

Part 1. Engine work. Part 2. Chassis work. Part 3. Ignition, starting and lighting work. Part 4. Machine shop and forging.

Each student will be given instruction in all four parts.

## DEPARTMENTAL STATEMENTS

## SYMBOLS

The courses are numbered in accordance with the system described on page 72.

## CREDIT HOURS

The number of credit hours allowed in each course is identical with the number of hours of lecture or recitation hours per week through the semester; in laboratory, shop, or field work two to three hours is considered as equivalent to one hour of lecture or recitation.

## CIVIL ENGINEERING

PROFESSOR KNOCH, ASSOCIATE PROFESSOR KNOTT, MR. VICTOR

The requirements for a degree are outlined on pages 160-161.

The courses in civil engineering include theoretical instruction accompanied by illustrations and as much of engineering practice as possible. The courses will give the student a knowledge of fundamental principles that will enable him to enter intelligently upon professional practice.

The special technical studies which are offered may be grouped under the heads of surveying, applied mechanics, road and railroad engineering, hydraulic engineering, bridge engineering, and sanitary engineering.

The work in surveying extends over three years. It embraces land surveying, leveling and United States public land surveys, during the sophomore year; topography, railroad reconnaissance and location, during the junior year; triangulation and geodesy, during the senior year. Much time is devoted to practice in the field and drafting room, this work being carried on parallel with the class-room work. Each year a party of engineering students goes into camp one week for practice in surveying and locating railway lines.



## HIGHWAY ENGINEERING

In recent years many problems have arisen in connection with the construction and maintenance of highways, creating a demand for men who have been trained for this particular branch of engineering. The course in highway engineering has been arranged to aid in training engineers for this line of work.

The work for the first two years of this course is practically identical with that of civil engineering. In the last two years subjects closely related to highway engineering have been introduced, and other subjects which are considered of less importance in highway work have been dropped from the regular course in civil engineering.

A well equipped laboratory has been provided for making all the standard tests in accordance with the practice of the United States Office of Public Roads.

All students are required to spend the vacation between their junior and senior years with the State Highway Engineer. Actual expenses will be allowed for this work.

## COURSES

No.	Title	Credits	Prerequisites
233	Highways .....	3	None
251	Surveying .....	5	Math. 156
256	Surveying .....	5	Math. 156
213	Leveling and Farm Drainage .....	1	Math. 156
321 (322) (323)	Railroad Engineering .....	6	Math. 156
324 (325) (326)	Field Practice .....	6	251, 256
331 (332) (333)	Technical Drawing .....	9	Drawing 221-223
341	Highway Engineering .....	4	Math. 156 and H. P. 341-343
341 (442)	Highway Engineering .....	4	H. P. 341-343
421 (422)	Technical Drawing .....	4	H. P. 341-343
443	Technical Drawing .....	4	H. P. 341-343
444	Highway Engineering .....	4	341-343 and H. P. 343
431	Sanitary Engineering .....	3	343
432	Waterworks Engineering .....	3	343
433	Highway Engineering .....	3	H. P. 343
434	Contracts and Specifications .....	3	†
439	Thesis .....	3	†
436 (437)	Masonry and Reinforced Concrete .....	6	H. P. 343
438	Field Practice .....	3	321-326
426	Highway Engineering .....	2	233, 251, 256
435	Highway Materials Laboratory .....	3	233, H. P. 343

†See statement.

223. **DESCRIPTIVE GEOMETRY.**—Problems in shades and shadows, isometric projection, and perspective. Drawing practice six hours a week.

ASSOCIATE PROFESSOR KNOTT.

233. **HIGHWAYS.**—A study of the location, construction, and maintenance of common macadam and Telford roads; brick, stone, wood, asphalt, and bituminous pavements for city streets. Lectures and recitations three hours a week.

PROFESSOR KNOCH

251. **ELEMENTARY SURVEYING.**—Instructions in the use, care and adjustments of the compass, transit and level; exercises in land surveying, leveling and public land surveys. Lectures and recitations four hours and field practice three hours a week. Required of all sophomore engineers.

ASSOCIATE PROFESSOR KNOTT.

256. **SURVEYING.**—The use and adjustments of the transit, solar attachment, plane table, sextant and level. Exercises in topographical and city surveying, including the use of the stadia. Lectures and recitations four hours and field practice three hours a week. Required of sophomore civil engineers.

ASSOCIATE PROFESSOR KNOTT.

213. **LEVELING AND FARM DRAINAGE.**—A course in leveling, land surveying, and farm drainage, designed for students in the course in agriculture. Lectures and recitations one hour the first part, and field practice three hours a week the second part, of the term.

ASSOCIATE PROFESSOR KNOTT.

321 (322) (323). **RAILROAD ENGINEERING.**—A study of preliminary surveys and location; transition curves, yards, and turnouts; estimates of earthwork and materials used in construction; the economics of railroad location and management. Lectures and recitations two hours a week.

PROFESSOR KNOCH.

324 (325) (326). **FIELD PRACTICE.**—Problems in location of curves, turnouts, and Y's; measurements of embankments and

cuts, computation of volumes. Field practice four hours a week.  
PROFESSOR KNOCH.

RAILROAD SURVEY.—Actual field practice in reconnoissance, preliminary surveys, location, and topographical survey. One week, twelve hours a day.

PROFESSOR KNOCH.

331 (332) (333). DRAWING.—Exercises in drawing topographical maps from actual surveys; computations and detail drawings of structures in stone, wood, and steel. Drawing practice nine hours a week.

ASSOCIATE PROFESSOR KNOTT.

343. HYDRAULICS.—A study of the theory of hydraulics; principles of hydrostatic and hydrodynamic pressures; steam-gauging; water-measuring devices. Lectures and recitations three hours a week.

ASSOCIATE PROFESSOR KNOTT.

441 (442). ROOFS AND BRIDGES.—A study of the theory of computation of stresses by both analytical and graphical methods; full computations, designs, and bills of materials for roof truss and railroad bridge. Lectures and recitations four hours a week.

PROFESSOR KNOCH.

421 (422). TECHNICAL DRAWING.—Right and oblique arches; drawings for computations of courses 441 (442). Lectures and recitations one hour and drawing practice three hours a week.

PROFESSOR KNOCH.

443. TECHNICAL DRAWING AND DESIGN.—Advanced structural designing and detailing. Drawing and computations eight hours a week.

PROFESSOR KNOCH.

444. HIGHWAY BRIDGES AND CULVERTS.—Problems in the design of highway bridges; determination of waterways; construction and maintenance of highway bridges and culverts. Lectures and recitations four hours a week.

PROFESSOR KNOCH.

431. **SANITARY ENGINEERING.**—Calculation and special details of construction of sewers; separate and combined systems of sewers; purification of sewage; municipal and domestic sanitation. Lectures and recitations three hours a week.

PROFESSOR KNOCH.

432. **WATERWORKS ENGINEERING.**—A study of systems of water supply; collection, purification, and distribution of water; location of waterworks, with details of construction and cost estimate; turbines and pumping engines. Lectures and recitations three hours a week.

PROFESSOR KNOCH.

433. **ENGINEERING LABORATORY.**—Tests of strength and other properties of materials of construction, tensile and crushing tests of brick, stone, and cement; flow of water through pipes, elbows, valves, and measurement of water by means of weirs and meters. Laboratory practice six hours a week.

MR. POLAND.

434. **CONTRACTS AND SPECIFICATIONS.**—Lectures and recitations three hours a week.

PROFESSOR KNOCH.

439. **THESIS.**—Each senior or graduate student, who is a candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10, to a committee consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title, the following statement: "Thesis submitted by\_\_\_\_\_to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of\_\_\_\_\_", and the date. Theses submitted for bachelor's degrees must be at least 2,500 words in length.

PROFESSOR KNOCH.

119. CIVIL ENGINEERING.—MASONRY AND REINFORCED CONCRETE.—A study of the use of mortars; stone and brick masonry; concrete; foundations on land and under water; theory and practice in design of reinforced concrete structures. Lectures and recitations three hours a week.

ASSOCIATE PROFESSOR KNOTT.

120. CIVIL ENGINEERING.—PROBLEMS IN TRIANGULATION, TOPOGRAPHIC SURVEYING, AND LEVELING; PRACTICAL ASTRONOMY. Lectures and recitations one hour and field practice and computations four hours a week.

ASSOCIATE PROFESSOR KNOTT.

121. HIGHWAY ENGINEERING.—A study of road laws, economics and design of roads and pavements; taxes, bond issues, and assessments; drainage; foundations; comparisons of the different types of roads; road surveying and design. Lectures and recitations two hours a week.

PROFESSOR KNOCH.

122. HIGHWAY ENGINEERING, LABORATORY.—Tests of gravel and broken stone to determine hardness, toughness, cementing power, and resistance to abrasion; rutting tests and absorption tests for paving brick; tests of sand and clay; inspection and tests of bituminous materials. Laboratory practice six hours a week.

PROFESSOR KNOTT.

## ELECTRICAL ENGINEERING

PROFESSOR GILBERT, ASSISTANT PROFESSOR STELZNER, MR. ROBT. The requirements for a degree are outlined on page 162.

The courses in this department seek to combine general and technical subjects in such proportions as to furnish a good foundation for the profession of electrical engineering. Sufficient theory is taught in the class-room and illustrated by laboratory experiments to give the student a knowledge of the underlying principles. Shop experience with manufacturing companies, to give the student specific practical training, is desirable. Such training should be obtained during vacations and after graduation.

## COURSES

No.	Title	Credits	Prerequisites
241	Elements of Electrical Engineering.....	4	Physics 242
211	Electrical Engineering Laboratory.....	1	*
341 (342)	Dynamo Electric Machinery .....	8	E. E. 241
311 (312)	Electrical Engineering Laboratory.....	2	*
343	Dynamo Electric Machinery .....	4	E. E. 341, 342
313	Electrical Engineering Laboratory.....	1	*
314 (315) (316)	Electrical Engineering Design .....	3	E. E. 241
331	Illuminating Engineering .....	3	E. E. 342
431 (432) (433)	Alternating Currents and Alternat- ing Current Machinery.....	9	E. E. 343 and Math. 252
411 (412) (413)	Electrical Engineering Laboratory...	3	*
414 (415) (416)	Electrical Engineering Design .....	3	*
441	Hydro-Electric Engineering .....	4	
434	Telephony .....	3	E. E. 241
451	Electrical Equipment of Power Plant .....	5	
435	Telegraphy .....	3	E. E. 241
442	Electric Railways .....	4	E. E. 343
421	Electrical Engineering SCHEMATIC .....	2	
511	Inspection Trip .....	0	
417 (418) (419)	Thesis .....	3	
443	Electric Transmission and Distribution....	4	

\*See statement.

**241. ELEMENTS OF ELECTRICAL ENGINEERING.**—A general introductory course to the study of electrical engineering, including recitations and demonstrations on electric and magnetic circuits and machines; measuring instruments, their use and calibration. Lectures and recitations four hours a week. Spring term. **Prerequisite:** Physics 242.

MR. RODI.

**211. ELECTRICAL ENGINEERING LABORATORY.**—A laboratory course to accompany Electrical Engineering 241. Laboratory practice three hours a week. Spring term.

MR. RODI.

**341 (342). DYNAMO ELECTRIC MACHINERY.**—A study of direct and alternating current machinery with their general applications. Lectures and recitations, four hours a week. First and second terms. **Prerequisite:** Electrical Engineering 241.

ASSISTANT PROFESSOR STELZNER.

**311 (312). ELECTRICAL ENGINEERING LABORATORY.**—Electrical and magnetic measurements, use and calibration of instruments; testing of direct and alternating current machinery. Labora-

tory practice three hours a week. Fall and winter terms. To accompany Electrical Engineering 341. (342).

MR. RODI.

343. DYNAMO ELECTRIC MACHINERY.—A course of lectures, recitations and problems devoted to the principles underlying the construction and performance of electrical machinery. Lectures and recitations four hours a week. Third term. Prerequisite: Electrical Engineering 341 (342).

ASSISTANT PROFESSOR STELZNER.

343. ELECTRICAL ENGINEERING LABORATORY.—A course devoted to the study of technical electrical measurements and dynamo electric machinery to accompany Electrical Engineering 343. Laboratory practice three hours a week. Spring term.

MR. RODI.

314 (315) (316). ELECTRICAL ENGINEERING DESIGN.—A study of design problems for direct current machinery. Calculations and drawing practice three hours a week. Prerequisite: Electrical Engineering 241.

MR. RODI.

331. ILLUMINATING ENGINEERING.—A study of electric light wiring and the different methods of artificial illumination; sources, intensity and distribution of light; physiological and hygienic problems; direct and indirect lighting; reflecting surfaces; illumination and photometric calculations. Lectures and recitations three hours a week. Spring term. Prerequisite: Electrical Engineering 342.

ASSISTANT PROFESSOR STELZNER.

431 (432) (433). ALTERNATING CURRENTS AND ALTERNATING CURRENT MACHINERY.—Lectures, recitations and problems on alternating current circuits and machinery. Three hours a week. Prerequisites; Electrical Engineering 343. Mathematics 252.

ASSISTANT PROFESSOR STELZNER.

411 (412) (413). ELECTRICAL ENGINEERING LABORATORY.—A series of laboratory exercises to accompany Electrical Engineering 431, (432) (433). Laboratory practice three hours a week.

MR. RODI.



414 (415) (416). **ELECTRICAL ENGINEERING DESIGN**.—A study of design problems for alternating current machinery. Calculations and drawing practice three hours a week. To be preceded or accompanied by Electrical Engineering 431 (432) (433).

MR. RODI.

441. **HYDRO-ELECTRICAL ENGINEERING**.—Methods of investigating power possibilities for flowing water, collecting data, selecting power sites, designing dams, power house, transmission lines, and machinery. Lectures and recitations four hours a week. First term. This course must be preceded or accompanied by course 431 (432) (433).

PROFESSOR GLADSON.

434. **TELEPHONY**.—A study of the principal systems of telephony in practical use. Three hours a week. Fall term. Prerequisite: Electrical Engineering 241.

MR. RODI.

451. **ELECTRICAL EQUIPMENT OF POWER PLANT**.—Selection of electrical machinery for power stations; station construction, operation, and management. Lectures and recitations five hours a week. Second term.

PROFESSOR GLADSON.

435. **TELEGRAPHY**.—A study of the principal systems of wire and wireless telegraphy in practical use. Three hours a week. Spring term. Prerequisite: Electrical Engineering 241.

MR. RODI.

442. **ELECTRICAL RAILWAYS**.—Application of electricity to the propulsion of street cars and railway trains. The selection, equipment, study of the various systems of electric traction. Lectures, recitations, and problems four hours a week. Second term. Prerequisite: Electrical Engineering 343.

ASSISTANT PROFESSOR STELZNER.

421. **ELECTRICAL ENGINEERING SEMINAR**.—Students who attend and take part in at least three-fourths of the meetings of the University of Arkansas Branch of the American Institute of Electrical Engineers during their junior and senior years, and prepare and present an acceptable original paper on some engineering subject, will be allowed two term credit hours.

511. **INSPECTION TRIP.**—During the fourth year students, accompanied by an instructor, make a visit of inspection to power houses, large electrical installations, and manufacturing plants, or a week is spent in actual practice work in determining the hydro-electric possibilities of some stream. One term hour credit.

417 (418) (419). **THESIS.**—Each senior or graduate student who is a candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other members appointed by the dean, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title and the following statement: "Thesis submitted by \_\_\_\_\_ to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of \_\_\_\_\_," and the date. Theses submitted for bachelor's degrees must be at least 2,500 words in length. Three term hours credit.

PROFESSOR GLADSON.

443. **ELECTRIC TRANSMISSION AND DISTRIBUTION OF POWER.**—Modern methods of transmission and distribution of electric power. Four hours. Third term.

PROFESSOR GLADSON.

## MECHANICAL ENGINEERING

There are two departments in Mechanical Engineering: Experimental Engineering and Drawing; and Heat Power Engineering and Mechanic Arts.

The requirements for a degree are outlined on page 163.

Mechanical engineers are in demand in various lines of engineering work, such as consulting engineering; power plant designing, constructing, and operating; designing, constructing,

erecting, operating, and testing all kinds of machinery; manufacturing; engineering salesmanship; heating and ventilating engineering; and efficiency engineering.

The course in mechanical engineering is designed to give the student a broad foundation in the subjects that are of the greatest importance in his work, a technical education in his chosen field made practical by shop and laboratory courses, and, in electives, a certain amount of specialization and cultural development. It is believed that such a course will enable the student to be of immediate value to his employer and that it will insure certain advancement in his profession.

## EXPERIMENTAL ENGINEERING AND DRAWING

PROFESSOR WILSON, MR. \_\_\_\_\_

### COURSES

#### Experimental Engineering

No.	Title	Credits	Prerequisites
225	Mechanical Laboratory .....	2	None
232	Engines and Boilers.....	3	None
321 (322) (323)	Mechanical Laboratory .....	6	225
344	Industrial Engineering .....	4	None
345	Industrial Engineering .....	4	None
347 (348)	Heating and Ventilation.....	8	232
422	Mechanical Laboratory .....	2	225
423	Mechanical Laboratory .....	2	225 Heat Power 342
437	Refrigeration .....	3	232
449	Thesis .....	4	None

#### Drawing

111 (112) (113)	Agricultural Drawing .....	3	None
121 (122) (123)	Mechanical Drawing .....	6	None
221 (222) (223)	Mechanical Drawing .....	6	123
341	Kinematics .....	4	223

**225. MECHANICAL LABORATORY.**—An elementary course in laboratory work, designed to acquaint the student with the use and operation of power plant equipment. One lecture and three hours laboratory work a week.

PROFESSOR WILSON,  
MR. \_\_\_\_\_.

232. ENGINES AND BOILERS.—An introductory study of engines, boilers and auxiliaries, to familiarize the student with power plant equipment. Three hours a week.

PROFESSOR WILSON.

321 (322) (323). MECHANICAL LABORATORY.—Exercises in the calibration of engineering instruments, such as indicators, planimeters, nozzles, and meters; valve setting, efficiency tests of steam engines and boilers. Laboratory four hours a week. This course must be preceded or accompanied by Heat Power Engineering 331 (332) (333).

PROFESSOR WILSON,  
MR. \_\_\_\_\_.

344. INDUSTRIAL ENGINEERING.—A study of the development and the application of the principles of industrial organization and administration. Four hours a week.

PROFESSOR WILSON.

345. INDUSTRIAL ENGINEERING.—Cost systems, time studies, safety engineering and fire protection. Lectures and recitations three hours a week. One period of drawing or laboratory a week.

PROFESSOR WILSON.

347 (348). HEATING AND VENTILATION.—The theory of heating and ventilation. The students make working drawings of the different types of heating plants and prepare estimates. Two recitations and two drawing periods a week.

PROFESSOR WILSON,  
MR. \_\_\_\_\_.

422. MECHANICAL LABORATORY.—Determining heating value of coal, gas, oil. Tests of lubricants.

PROFESSOR WILSON.

423. MECHANICAL LABORATORY.—Properties of engineering materials investigated experimentally. Complete test of some power or pumping plant. Special investigations. Four hours laboratory a week.

PROFESSOR WILSON.

437. **REFRIGERATION.**—A study of the theory of the absorption and compression systems of ice making, and of ice making machinery and insulation. Lectures and recitations three hours a week.

PROFESSOR WILSON.

440. **THESES.**—Each senior or graduate student who is a candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title, the following statement: "Thesis submitted by-----to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of-----", and the date. Theses submitted for bachelor's degrees must be at least 2,500 words in length.

PROFESSOR WILSON.

#### DRAWING COURSES

111 (112) (113). **AGRICULTURAL DRAWING.**—Elementary principles of mechanical drawing, exercises in free hand lettering, and drawing of farm structures. Drawing practice three hours a week.

MR. -----.

121 (122) (123). **MECHANICAL DRAWING.**—Instruction in the selection, use and care of instruments, lettering, sketching, and working drawings. The latter half of this course is devoted to elementary Descriptive Geometry. The problems are assigned and worked out in the drawing room. Six hours drawing practice a week.

MR. -----.

221 (222) (223). **MECHANICAL DRAWING.**—An elementary course in mechanical drawing, including lettering, technical sketching of machine parts, detail and assembly drawing, tracing and blue-printing, perspective and isometric drawing, drawing of developed surfaces, and topographical drawing. Drawing practice six hours a week.

PROFESSOR WILSON,  
MR. \_\_\_\_\_.

341. **KINEMATICS.**—An investigation of the means by which motion is transmitted in machines and of the principles underlying the design of gears, cams, and similar mechanical devices. Two recitations and six hours drawing a week.

PROFESSOR WILSON  
MR. \_\_\_\_\_.

## HEAT POWER ENGINEERING AND MECHANIC ARTS

PROFESSOR BAENIER, MR. CLOUSE, MR. DINWIDDIE, MR. DANNER

### COURSES

#### Heat Power Engineering

No.	Title	Credits	Prerequisites
341 (342) (343)	Theoretical Mechanics .....	12	Mathematics 251 (252)
344 (345)	Machine Design .....	8	341 (342) (343)
331 (332) (333)	Heat Power Engineering.....	9	Physics 241 (242) (243)
451	Mechanical Equipment of Power Plants .....	5	331 (332) (333)
452	Engine and Boiler Design.....	5	344 (345), 332 (333)
417 (418) (419)	Thesis .....	3	

#### Mechanic Arts

121 (122) (123)	General Shop .....	6	None
111 (112) (113)	Carpentry and Forge .....	3	None
124 (125) (126)	Manual Training .....	6	None
451	Advanced Shop .....	5	121 (122) (123)

### HEAT POWER ENGINEERING

341 (342) (343). **THEORETICAL MECHANICS.**—A study of statics and dynamics, including a mathematical discussion of inertia, energy, and similar topics. A study will also be made of the materials of construction including the mathematical develop-

ment of the formulae for calculating the strength of beams, columns, and shafting, with numerous practical problems illustrating the theory involved. Lectures and recitations four hours a week.

PROFESSOR BAENDER.

344 (345). MACHINE DESIGN.—A study of the kinematics of machinery, gear wheels, and link motion. Designs will be made of complete lathes, punches, and similar machines. Complete working drawings will be made, including the application of theory to practical problems. This course must be preceded or accompanied by course 341 (342) (343). Lectures and recitations two hours a week, drawing six hours a week.

PROFESSOR BAENDER.

331 (332) (333). HEAT POWER ENGINEERING.—A study of the thermo-dynamic theory underlying heat engines and its application to the steam and gas engines; valves and valve gears are analyzed by the valve diagrams. A study will also be made of boilers, superheaters, and the properties of saturated and superheated steam. Lectures and recitations three hours a week.

PROFESSOR BAENDER.

451. MECHANICAL EQUIPMENT OF POWER PLANTS.—Instruction in the selection of machinery for power plants, coal-handling, and ash-handling. A special study will be made of the characteristics of operation of the various types of prime movers and auxiliaries under variable loads so that equipment best adapted for the problem at hand may be selected. Lectures and recitations five hours a week.

PROFESSOR BAENDER.

452. ENGINE AND BOILER DESIGN.—A study of the mechanics of engines and boilers with problems illustrating the thermo-dynamic theory underlying the design. This course must be preceded or accompanied by course 331 (332) (333). Elective, five hours a week.

PROFESSOR BAENDER.

417 (418) (419). THESIS.—Each senior or graduate student who is a candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed



thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title and the following statement: "Thesis submitted by \_\_\_\_\_ to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of \_\_\_\_\_," and the date. Theses submitted for bachelor degrees must be at least 2,500 words in length.

PROFESSOR BAENDER.

#### MECHANIC ARTS

121 (122) (123). GENERAL SHOP PRACTICE.—A general course in shop work, including practice in joinery, the use and care of wood-working tools with proper methods of sharpening them, and the making of patterns and core boxes; foundry practice, in moulding in green sand, melting and pouring brass and iron, and core-making; forge practice in the management of fires, drawing, welding, forging, and annealing and tempering of tools; machinery shop practice including bench work in chipping and filing, and practical exercises in turning, thread cutting, planing, drilling, grinding, and general repairing of machinery. Shop practice six hours a week.

MR. DINWIDDIE.

MR. CLOUSE,

MR. DANNER.

111 (112) (113). CARPENTRY AND FORGE PRACTICE.—A general course in shop-work designed especially for students in agriculture, including the use and care of woodworking tools, grinding and sharpening edge tools, setting and filing saws. Instruction in sawing, quarter-sawing and seasoning lumber, board measure and stock dimensions; commercial methods of handling lumber, the construction of modern farm buildings; preparing lists of material, plain roof framing, and use of the steel square.

Forge work, including exercises in upsetting, drawing out, bending, twisting, welding and tempering. Shop practice three hours a week.

MR. DINWIDDIE.

MR. CLOUSE.

124 (125) (126). **MANUAL TRAINING.**—A course in joinery, cabinet-making, and wood turning with emphasis on the care, use, and proper methods of sharpening tools; designed especially for prospective teachers in manual training. Shop practice twelve hours a week.

MR. DINWIDDIE.

451. **ADVANCED SHOP PRACTICE.**—Advanced work in machine shop, including the lathe, planer, and milling machine. Special attention is given to the making of tools, including milling cutters, twist drills, reamers, and dies, and to the cutting of plain, beveled, and worm gears. In this course special attention is given to the introduction of modern shop methods and time study. Shop practice six hours a week.

MR. CLOUSE.

#### TRADE COURSES

**SHOP WORK.**—Each student is required to work at least eight hours a week in the shop. He will be assigned to the kind of work thought to be best suited to train him for the work that he proposes to follow after completing the course.

**Five courses of Shop Work are offered:**

(21). **CABINET WORK.**—The use and care of wood-working tools and machinery, making of cabinets and the finishing of furniture. **Four or eight hours a week.**

(22). **WOOD-WORKING AND PATTERN MAKING.**—Practice in joinery, including the use and care of wood-working tools with proper methods of sharpening them, and the making of patterns and coreboxes. **Four or eight hours a week.**

(23). **FOUNDRY PRACTICE.**—Exercises in moulding in green sand, melting and pouring brass and iron, and core making. **Four or eight hours a week.**

(24). **FORGE PRACTICE.**—Instruction in management of fires, drawing, and welding; exercises involving various difficult forging operations. Special attention is given to the heat treatment of steel, forging, annealing, and tempering of tools. **Four or eight hours a week.**

(25). **MACHINE SHOP.**—Instruction in the use of hand tool, chipping, filing, fitting bearing, use of drill press, lathe, planer and milling machine. Gear cutting. **Four or eight hours a week.**

11 (12) (13). **ELEMENTARY MECHANICAL DRAWING.**—Free-hand lettering, practice and use of instruments. Sketching of machine parts, and the making of working drawings from sketches, tracing, and blue printing. **Four or eight hours drawing practice a week.**

44. **ELEMENTS OF ELECTRICITY.**—The fundamental laws of the electric and magnetic circuits are treated in such a manner as to give the student sufficient knowledge to understand their applications met with in practice. Fall term. Class work, four hours a week. **Laboratory practice, four hours a week.**

45. **DIRECT CURRENT MACHINERY.**—Types of generators and motors, their characteristics, applications and care. Control equipment and measuring instruments. Winter term. Class work, four hours a week. **Laboratory practice, four hours a week.**

46. **ALTERNATING CURRENT MACHINERY.**—Types of generators and motors, their characteristics, applications and care. Control equipment and measuring instruments. Spring term. Class work, four hours a week. **Laboratory practice, four hours a week.**

47. **STEAM POWER AND ACCESSORIES.**—A course covering the elementary principles of steam boiler operation and care, types of boilers and furnaces, boiler feed pumps, in- and out- and feed water heaters are studied and at the same time the student gets actual practice in handling equipment in the laboratory and home room. Class work, four hours a week. **Laboratory practice, four hours a week.**

42. **STEAM ENGINES.**—The elementary theory of the steam engine and the care and operation of various types are studied and compared. The equipment in the Experimental Engineering Laboratory is used for practice in the use of the indicator, operating and adjusting engines, setting valves and for running simple tests. Class work, four hours a week. Laboratory practice, four hours a week.

43. **GAS ENGINES.**—This course is designed to familiarize the student with the principles underlying the action of gas and oil engines. The action of the different types of carburetors is explained and demonstrated. Actual operation of gas and oil engines is taught in the laboratory. Class work, four hours a week. Laboratory practice, four hours a week.

## MINING ENGINEERING

PROFESSOR DRAKE

The requirements for a degree are outlined on page 164. The course is planned so as to give the major instruction in geology, mining engineering, and chemistry, with minor work in civil, mechanical, and electrical engineering.

The practical work of mining, metallurgy, and ore dressing can be learned so much more readily at practical work than but little laboratory work in these lines is offered. Students are expected, however, to spend parts of at least two summer vacations at ordinary day work in some mine, mill, or smelter where they will be expected to ask questions of the workmen, keep notes of their observations, and compute the costs of some detailed operations.

While this course is not unduly exacting, it is severe and should be undertaken only by students well prepared mentally and physically.

### COURSES

#### Mining Engineering

No.	Title	Credits	Prerequisites
321 (322) (323)	Details of Mining Operations.....	6	None
434	Ore Dressing .....	3	None

**Metallurgy**

436	General Metallurgy	3	None
428	Assaying	2	Chem. 255

**MINING ENGINEERING**

321 (322) (323). **DETAILS OF MINING OPERATIONS.**—A study of excavating, drilling, blasting, driving shafts, adits, and drifts, stoping, timbering, hoisting, draining, and transporting. Lectures and recitations two hours a week.

**PROFESSOR DRAKE.**

434. **ORE DRESSING.**—A study of general principles and theory of ore dressing, cleansing, crushing, sizing, and classifying, jigging, table concentrating, and stamp milling of gold and silver ores, with description of typical ore dressing works. Lectures and recitations three hours a week.

**PROFESSOR DRAKE.**

**METALLURGY**

436. **GENERAL METALLURGY.**—An elementary study of fuels and furnaces and the metallurgy of iron, steel, copper, lead, silver and gold. Lectures and recitations three hours a week.

**PROFESSOR DRAKE.**

428. **ASSAYING.**—Fire assaying of various classes of ores and furnace products of gold, silver, and lead. Laboratory work one afternoon a week with occasional lectures and recitations.

**PROFESSOR DRAKE.**

# GENERAL EXTENSION DIVISION

B. C. RILEY, *Director.*

The business of the modern university is to serve not only a group of qualified resident students but all the people in the commonwealth supporting that university. In order to reach people living at a distance the Extension Service has been established by the University of Arkansas. The Extension Service is made up of an Agricultural Extension Division and a General Extension Division.

The General Extension Division represents the colleges of Arts and Sciences, Education, and Engineering, and in an effort to help "carry the University to the people," the work of the Division has been divided into two groups. The Extension Teaching Service and the Public Welfare Service.

## I. EXTENSION TEACHING SERVICE

The Extension Teaching Service has been designed to give busy men and women, and all others, who cannot attend the University, an opportunity to get some of the advantages for instruction and culture which may be a help and pleasure to them. This work includes correspondence study, club study, class study, lectures and lecture courses.

**CORRESPONDENCE STUDY.** Correspondence study offers to every one an excellent opportunity to advance in his vocation, obtain a University degree or take courses for culture. Special correspondence courses for teachers and reading courses for club women and busy people have been outlined for 1919. Correspondence courses are available for those desiring to earn University credit, while a number of well directed reading courses, in many instances covering practically the same ground but not given for credit counting toward a University degree, are offered to those who wish to better fit themselves for their occupation or to spend their leisure hours reading for culture.

**CLUB STUDY.** Club study has been designed to afford associated groups of people, particularly teachers and club women, an opportunity to study, read and get in touch with the latest

thought on cultural or professional subjects. It provides a definite plan for co-operative study. Upon request a course of reading is outlined by a faculty member and a text book is selected as a basis for study. Two to six reference books to be used by the entire club are required and an outline containing a full list of references to these books and the text together with suggested topics for special papers, reports, etc., are furnished. Through the secretary the progress of the club is reported to the instructor in charge who receives and criticises the **special papers and answers all questions.**

Courses in education, literature, social science, hygiene, home economics, political science, and art are now offered.

**CLASSES STUDY.** Wherever possible and funds will permit, Extension classes in technical or cultural subjects may be organized. These classes will be supervised by faculty members from the State University and will usually meet at night.

**EXTENSION LECTURES.** An Extension Lecture Bureau is maintained. Through this bureau the General Extension Division arranges for lectures to be given by prominent professional men, ministers, state officials and university professors, on a wide range of subjects. These lectures are technical, informational, and inspirational and suited for the programs of organizations, such as women's clubs, business men's leagues and other associations, as well as for institutes, conventions, commencement exercises and holiday programs. Lecturers in most cases do not charge a fee, but with few exceptions their expenses must be paid.

**LYCEUM COURSES.** The winter lecture or lyceum course is an educational feature in which every one is especially interested and following the example of all the large universities, the General Extension Division proposes to furnish school men or local committees with lecture course talent for next season at cost. In doing this the General Extension Division will simply get an option on a number of dates for professional concert companies and entertainers and will act as a clearing house for these dates. In this way much can be saved on the cost of the **local lecture course.**

Dealing in talent is a legitimate business for the University.



First, because a lecture course is recognized as an educational institution and a necessity in most places and if the General Extension Division can, it is only a duty to help reduce its cost. Second, the saving made by cooperative buying through the General Extension Division can be turned into some other good things for the home town.

## II. PUBLIC WELFARE SERVICE

Through the Public Welfare Service of the General Extension Division lantern slides, talking machine records and package libraries will be lent. Community institutes, extension centers, surveys and conferences will be organized and directed, and cooperative assistance will be given to all clubs, societies, public boards and other agencies working for public good or community betterment.

**LANTERN SLIDES AND MOTION PICTURES.** By cooperating with the large corporations, bureaus and departments of the United States Government, the General Extension Division can now supply clubs, schools and communities with thousands of slides and many motion picture reels, either for instruction or entertainment. Lecture outlines accompany many of the sets of slides.

Fine sets of slides on travel, including "Seeing America," South America, the Islands of the Sea, Alaska, Mexico, Cuba, Holland, Italy, Russia, Sweden, Spain, Scotland, Switzerland, China, India, Japan, Korea, Algiers, Egypt and South Africa are available, as well as some very good sets on agriculture and other technical subjects. These slides are ideal to use at any school or church for free entertainment on the club program or for agriculture, history, geography or English classes in the local high school. No rent is charged, but the express must be paid by the borrower. This is very little because of the circuit plan of routing.

**TALKING MACHINE RECORDS.** Through the University School of Music the General Extension Division offers to farmers' clubs, women's societies, churches and schools, sets of the best talking machine records, making up complete programs which are accompanied by lecture material.

**PLAYS AND RECITATIONS FOR SCHOOLS.** In order to assist teachers, club women and dramatic societies to secure good plays with little expense, the General Extension Division will furnish some of the best plays available for amateur use and other information which will help in working up dramatics. A number of plays are usually lent for a short period from which the local committee can make a selection and order the copies from the publisher to be used in producing the play. A number of recitations are also available. In borrowing plays and recitations for examination the only cost will be the return postage.

**PACKAGE LIBRARIES—DEBATING SOCIETIES.** Packages of material which are a great help in working up papers or debates will be lent. These package libraries contain material on certain groups of special subjects and some on present day questions. Clubs, societies and individuals are urged to use these package libraries and whenever possible organize a debating society for public discussion. In borrowing package libraries the only cost will be return postage.

**COMMUNITY INSTITUTES.** Commercial clubs, churches, women's clubs, parent-teachers' associations, fraternal associations, labor unions and many other organizations are doing their bit to improve the welfare of their community. These scattered efforts have resulted in much good, but modern business methods demand that all these organizations get together on the certain specialized lines of work most needed until they really make the home town the best town to live in. To secure this unified action, an opportunity must be given to make systematic investigation and carry on profitable discussion, which may result in working out the best solution for some of the local problems.

The General Extension Division offers this opportunity in the community institute. A number of community institutes will be held in the towns of Arkansas during 1919-20. These institutes will consist of a two or three days' program upon which will appear the best known men and women from the State Departments, clubs and associations, from the University, and from other educational institutions. They will take up and thresh out the local community problems. Lectures and illustrated talks

will be given, demonstrations offered, motion pictures shown, and conferences held. In addition to discussing "How to get more business," "How to eliminate the city limits and bring the merchant and farmer together," etc., emphasis will be placed upon some of the often neglected community problems, such as public health, child welfare, recreation, city beautification, etc. High school pupils' and childrens' meetings will be held at the schoolhouse, church, library or other convenient place. Night programs will be designated as "get together meetings" at which programs will be rendered consisting of music, a home talent play or a good picture show and a short, interesting talk.

GENERAL INFORMATION. If you want any information on science, engineering, education, literature, or art, write to the General Extension Division. If there is any one at the University, in the State or Nation who can answer your questions we will be glad to put you in touch with them. This service is free to individuals as well as all clubs, civic societies or public boards.

Address all communications to the Director, General Extension Division, University of Arkansas.

# COLLEGE OF AGRICULTURE

The courses in the College of Agriculture are designed to train men and women for efficiency in agriculture, whether for the profession of farming, for teaching agriculture, or for specialization in definite fields in preparation for government service.

## ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance see page 35.

## COURSES OF STUDY

The College of Agriculture offers a four-year course in agriculture leading to the degree of *Bachelor of Science in Agriculture* (B. S. A.); special short courses in agriculture; a four-year course in home economics leading to the degree of *Bachelor of Science in Home Economics* (B. S. H. E.) and a special center of four weeks for home demonstration agents.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

The candidate must meet the entrance, residence and registration requirements and must complete satisfactorily two hundred ten credit hours as outlined in the following course of study:

### *Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Chemistry 141 (142) (143).....	4	4	4
Botany 141 (142) .....	4	4	..
Zoology 143 .....	..	..	4
English 141 (142) (143).....	4	4	4
Horticulture 141 .....	4	..	..
Agronomy 141 .....	..	4	..
Animal Husbandry 141 .....	..	..	4
Mechanic Arts 111 (112).....	1	1	..
Drawing 111 .....	..	..	1
Military Art 111 (112) (113).....	1	1	1
	18	18	18

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*Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Physics 241 (242).....	4	4	..
Horticulture 244 .....	4	..	..
Agronomy 241, 242.....	..	4	4
Animal Husbandry 241, 242.....	..	4	4
Agricultural Chemistry 231.....	..	..	3
Chemistry 241, 244, 242.....	4	4	4
Mathematics 247 .....	4	..	..
Civil Engineering 213.....	..	..	1
Military Art 221 (222) (223).....	2	2	2
	18	18	18

At the beginning of the junior year the candidate will be required to choose one major and one minor subject from the departments of the college, the choice of which will determine largely his course of study for the junior and senior years.

The following course is prescribed for those who choose Agronomy as a major:

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 331 (332) (333).....	3	3	3
Agronomy 341, 342, 343.....	4	4	4
Agronomy 344, 345.....	4	4	..
Entomology 151 .....	..	..	5
Bacteriology 351 .....	..	..	5
Animal Husbandry 351, 352 (or Horticulture).....	5	5	..
*Elective .....	2	2	1
	18	18	18

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Economics 430, 431, 432.....	3	3	3
Plant Pathology 331 .....	3	..	..
or			
Botany 242.....	4	..	..
Botany 341 .....	..	4	..
*Elective .....	9-10	9	13
	16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than thirty credit hours in Agronomy and not less than sixteen credit hours in one minor subject.

The following course is prescribed for those who choose Animal Husbandry as a major:

Course	<i>Junior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
English 331 (332) 333.....		3	3	3
Veterinary Science 331, 332, 333.....		3	3	3
Bacteriology 351 .....		..	..	5
Zoology 453 .....		..	..	5
Animal Husbandry 351, 352.....		5	5	..
Animal Husbandry 331, 332.....		3	3	..
Animal Husbandry 321.....		..	..	2
*Elective .....		4	4	..
		18	18	18

Course	<i>Senior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Economics 430, 431, 432.....		3	3	3
Animal Husbandry 431, 432.....		3	3	..
Animal Husbandry 451.....		5	..	..
*Elective .....		5	10	13
		16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than thirty credit hours in Animal Husbandry and not less than fifteen credit hours in one minor subject.

The following is prescribed for those who choose Horticulture as a major:

Course	<i>Junior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Horticulture 341, 342, 343.....		4	4	4
English 331 (332) (333).....		3	3	3
Botany 242 .....		4	..	..
Botany 341 .....		..	4	..
Entomology 151 .....		..	..	5
Plant Pathology 331, 332.....		3	3	..
*Elective .....		4	4	6
		18	18	18

Course	<i>Senior Year</i>	CREDIT HOURS		
		FALL TERM	WINTER TERM	SPRING TERM
Horticulture 347, 348, 349.....		4	4	4
Economics 43 .....		3	3	3
Entomology 242 .....		3	..	..
Bacteriology 351 .....		..	..	5
*Elective .....		6	9	4
		16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than thirty credit hours in Horticulture and not less than fifteen credit hours in one minor subject.

The following course is prescribed for those who choose Plant Pathology as a major:

### Junior Year

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Botany 242 .....	4	..	..
Botany 341 .....	..	4	..
Bacteriology 351 .....	..	..	5
English 331 (332) (333).....	3	3	3
Plant Pathology 331, 332.....	3	3	..
Entomology 151 .....	..	..	5
Botany 551 .....	..	3	..
*Elective .....	8	5	5
	18	18	18

### Senior Year

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Plant Pathology 452, 453, 454.....	5	5	5
Economics 430, 431, 432.....	3	3	3
Plant Pathology 435, 436, 437.....	3	3	3
Horticulture 337.....	..	..	3
*Elective .....	5	5	2
	16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than thirty credit hours of Plant Pathology and not less than eighteen credit hours in one minor subject.

The following course is prescribed for those who are preparing for graduate or professional work:

### Junior Year

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 331 (332) (333).....	3	..	..
Economics 430, 431, 432.....	3	3	3
Bacteriology 351 .....	..	..	5
Modern Language .....	3	3	3
*Elective .....	9	9	4
	18	18	18

### Senior Year

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
*Elective .....	16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than thirty credit hours in one major subject and not less than eighteen credit hours in one minor subject.



The Teacher's Certificate, in addition to the degree of Bachelor of Science in Agriculture, is granted to all candidates for a degree who complete the following course, including thirty-six credits in education:

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 331 (332) 333.....	3	3	3
Economics 431, 432, 433.....	3	3	3
Bacteriology 351 .....	—	—	5
Education .....	6	6	6
*Elective .....	6	6	1
	18	18	18

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Education .....	6	6	6
*Elective .....	10	10	10
	16	16	16

\*To be chosen from courses approved by the candidate's major professor so as to include for the junior and senior years not less than twenty-four credit hours in one major subject and not less than eighteen credit hours in two other subjects including courses in not more than two departments.

### REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN HOME ECONOMICS

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily one hundred and ninety-eight credit hours in approved courses as outlined in the following courses of study.

*Freshman Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
English 131 (132) (133).....	3	3	3
Chemistry 141 (142) (143).....	4	4	4
Mathematics 111 (112) (113).....	4	4	4
History 121 (122) (123).....	3	3	3
Art 124 (125) (126).....	2	2	2
Physical Education 111 (112) (113).....	1	1	1
	17	17	17

*Sophomore Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Zoology 241 (242) (243).....	4	4	4
Home Economics 231 (232) (233).....	3	3	3
Chemistry 241 .....	4	..	..
Chemistry 247 .....	..	4	..
Chemistry 242 .....	..	..	4
Home Economics 234 (235) (236).....	3	3	3
Home Economics 221 (222) (223).....	2	2	2
Physical Education 211 (212) (213).....	1	1	1
	17	17	17

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 331 (332) 334.....	3	3	3
Bacteriology 352 .....	5	..	..
Psychology 140 .....	..	4	..
Modern Language .....	3	3	3
*Elective .....	5	6	10
	16	16	16

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 335 (336).....	3	3	..
Home Economics 444.....	..	..	4
Home Economics 441 (442) (443).....	4	4	4
Modern Language .....	3	3	3
*Elective .....	6	6	5
	16	16	16

\*Each student will be advised to take all electives in one of the following groups.

*Group I*

<i>Nutrition</i>	Credit Hours
Chemistry .....	4
Biology or Bacteriology .....	10
Economics .....	3

*Group II*

<i>Rural Extension</i>	Credit Hours
Landscape Gardening .....	3
Vegetable Gardening .....	3
Poultry Work .....	4
Dairying .....	4
Agricultural Economics .....	3
Vocal Expression .....	4

*Group III*

<i>Clothing</i>	Credit Hours
Constructive Design ..	6
Art Needlework ..	2
Millinery .....	2
Economics ..	3
Sociology ..	4

The Teacher's Certificate, in addition to the degree of Bachelor of Science in Home Economics, is granted to all candidates for a degree who complete the following course, including thirty-six credit hours in Education:

*Junior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 331 (332) 334.....	3	3	3
Bacteriology 352 .....	5	..	..
Economics 340 .....	4	..	..
Education 250 .....	..	5	..
Education 130 .....	..	3	..
Education 140 .....	..	..	4
Psychology 242 .....	..	4	..
Home Economics 340 .....	..	..	4
Home Economics 341 .....	..	..	4
*Elective .....	4	1	1
	16	16	16

*Senior Year*

Course	CREDIT HOURS		
	FALL TERM	WINTER TERM	SPRING TERM
Home Economics 461.....	6	..	..
Home Economics 335 (336).....	3	3	..
Home Economics 341 (342) (343) ..	4	..	4
Education 260, 261.....	..	6	6
*Elective .....	3	3	6
	16	16	16

\*1. In chosen from courses approved by the candidate's instructor.

*SHORT COURSE IN AGRICULTURE*

The short course in agriculture is designed for those who cannot remain away from home the entire year and who desire a practical course in preparation for farming. The course begins early in January and continues four weeks. To be eligible for

admission, applicants must be at least sixteen years of age and must have a common school education.

Detailed information will be given upon request. Address the Dean, College of Agriculture, University of Arkansas, Fayetteville, Arkansas.

## DEPARTMENTAL STATEMENTS

### SYMBOLS

The courses are numbered in accordance with the system described on page 72.

### CREDIT HOURS

The number of credit hours allowed in each course is identical with number of hours of lecture or recitation per week through the semester; in laboratory, shop, or field work two to three hours is considered as equivalent to one hour of lecture or recitation.

## AGRICULTURAL CHEMISTRY

PROFESSOR READ, MR. RIDGELL

Agricultural chemistry deals mainly with the changes occurring in the soil, the growth and life of plants, the feeding of animals, and the preparation of food products. It is essentially the application of chemistry to agricultural problems.

It is assumed that the student has a knowledge of general chemistry and is familiar with the properties of the more commonly occurring elements and their compounds.

### COURSES

No.	Title	Credits	Prerequisites
241	Agricultural Chemistry .....	4	Chem. 143, 242, 241
341	Advanced Agricultural Chemistry.....	†	241, Chem. 244

†See statement.

231. AGRICULTURAL CHEMISTRY.—A detailed study of the application of chemistry to agricultural problems, accompanied by oral and written reviews of experiment station bulletins dealing with various phases of agricultural chemistry. Lectures, recitations and reports four hours a week.

PROFESSOR READ.

341. ADVANCED AGRICULTURAL CHEMISTRY.—Chemical analysis of feeds, fertilizers, insecticides, fungicides, dairy products, soils, and fuels. Laboratory work supplemented by lectures, the amount of credit to be determined by the work done.

PROFESSOR READ,

MR. RIDGELL.

## AGRONOMY

PROFESSOR NELSON, ASSISTANT PROFESSOR SACHS, ASSISTANT PROFESSOR O'BURN, ASSISTANT PROFESSOR AYRES

The courses in this department are designed to meet the requirements of (1) students who desire a general knowledge of the subject as a part of a cultural education, (2) students who are interested especially in farm operations or the management of land, (3) students who desire a technical knowledge of the subject as a preparation for teaching or graduate or research work.

COURSES			
No.	Title	Credits	Prerequisites
141	Agronomy .....	4	None
241	Soils .....	4	141 Chem. 143
242	Soils .....	4	141 Chem. 143
341	Farm Crops .....	4	141, 241, 242
342	Farm Crops .....	4	141, 241, 242
343	Farm Crops .....	4	141, 241, 242
344	Soil Fertility .....	4	241, 242
345	Soil Fertility .....	4	241, 242
346	Soil Classification .....	4	241, 242
347	Farm Drainage .....	4	241, 242, C. E. 213
441	Cotton Production and Judging.....	4	141, 241, 242
442	Cotton Production and Judging.....	4	141, 241, 242
443	Plant Breeding .....	4	Botany 341
431	Farm Management .....	3	141, 241, 242, 341, 342, 343
432	Farm Management .....	3	141, 241, 242, 341, 342, 343
433	Farm Management .....	3	141, 241, 242, 341, 342, 343
441	Research .....	1-4	†
442	Research .....	1-4	†
443	Research .....	1-4	†

†See statement.

141. **AGRONOMY.**—A study of crops—cotton, corn, small grains, clovers, forage, and miscellaneous—including varieties, strains, quality, standardizations, the use of score cards, grading, identification of seed grasses, clovers, alfalfa, and other legumes and forage crops, weed seed, characteristic adulterants. Stress is placed upon the staple crops. Lectures and recitations two hours, laboratory practice four hours a week.

ASSISTANT PROFESSOR OSBORN.

241, 242. **SOIL PHYSICS.**—A study of the nature, origin, formation, physical properties, and classification of soils; soil moisture and the method of conserving it; movement of soil water; its relation to color, light, and temperature; objects and methods of use of farm implements as related to the various soils and crops; management, cultivation, and drainage as affecting soil moisture, temperature, aeration, root development, and the supply of available plant foods. Lectures and laboratory four hours a week.

ASSISTANT PROFESSOR SACHS.

341, 342, 343. **FARM CROPS.**—A thorough study of the forage and cereal crops; methods of cultivating, seeding, harvesting, storing and marketing; testing, selecting and improving; combating weeds. Lectures and recitations two hours, laboratory practice four hours a week.

ASSISTANT PROFESSOR SACHS.

344, 345. **SOIL FERTILITY.**—A study of conditions governing productivity, exhaustion of soils, and maintenance of fertility; soil bacteria; organic matter, green manures, farm manures, and commercial fertilizers, rotation of crops and treatment of soil; soil building, a permanent agriculture. Lectures and laboratory four hours a week.

ASSISTANT PROFESSOR SACHS.

346. **SOIL CLASSIFICATION.**—This course is designed to familiarize the student with the methods and practice of soil survey work. The important soil types will be studied with special reference to Arkansas and the South in general. Lectures and field practice four hours a week.

ASSISTANT PROFESSOR SACHS.

347. FARM DRAINAGE —A study of drainage, irrigation, and terracing with reference to the farm; mapping, planning, and laying drainage systems; field work, including the care, adjustment, and use of instruments for this purpose. Lectures and recitations two hours, field practice four hours a week.

ASSISTANT PROFESSOR SACHS.

441, 442. COTTON PRODUCTION — An advanced course in producing and handling cotton. The following topics will be studied in detail: origin, history, production, composition, cropping systems, improvement, pests, diseases, harvesting, storing, and marketing; in laboratory will be studied girdle causes; practice in grading and stapling or "pulling" will be given. The government standards will be used for comparison. Lectures and laboratory practice four hours a week.

ASSISTANT PROFESSOR AYRES.

443. PLANT BREEDING —The practical application of the principles of variation and heredity to the breeding of general farm crops. Special attention is paid to the practical breeding of corn, cotton, small grains, and forage crops. Lectures and recitations four hours a week. This course is open only to seniors.

ASSISTANT PROFESSOR OSBORN.

431, 432, 433. FARM MANAGEMENT —A study of the general principles of farm management; farm organization; the choice of a farm; types of farming; farming as a business; administration and cost of production; marketing farm products; records and accounts. Lectures and recitations three hours a week. This course is open only to seniors.

PROFESSOR —————

441, 442, 443. RESEARCH —Research work in special problems designed for advanced students, one to four hours a week.

PROFESSOR —————



## ANIMAL HUSBANDRY

PROFESSOR DVORACHEK, ASSISTANT PROFESSOR MASON, ASSISTANT  
PROFESSOR —————, MR. STOUT, MR. THURBER.

This department offers courses in live stock production, poultry production and dairying. Training is given in the selection, breeding, feeding, development, care and management of the various classes and breeds of farm animals. The stock and poultry owned by the department are used to familiarize the student with the various types and breeds of live stock. Students interested in dairying have an opportunity to study the machinery in operation in a commercial creamery.

## COURSES

No.	Title	Credits	Prerequisites
141	Farm Poultry Culture.....	4	None
241	Farm Dairying .....	4	Chem. 143
242	Judging Types and Market Classes.....	4	None
351	History of Breed and Pedigree.....	2	None
352	Feeds and Feeding...	5	Agr. Chem. 241
451	Animal Breeding .....	5	Zoology 453
331	Judging Breed Types of Sheep and Swine....	3	242, 351
332	Judging Breed Types of Beef Cattle and Horses.....	3	242, 351
321	Dairy Stock Judging.....	2	242, 351
431	Advanced Live Stock Judging .....	3	242, 351, 331, 332, 321
432	Live Stock Management...	3	242, 351, 352, 451
421	Pork Production .....	2	242, 351, 352, 451
422	Horse Production .....	2	242, 351, 352, 451
433	Poultry Production .....	3	141
424	Beef Production .....	2	242, 351, 352, 451
425	Milk Production .....	2	242, 351, 352, 451
426	Mutton and Wool Production .....	2	242, 351, 352, 451
441	Butter Making and Creamery Management .....	4	241
427	Animal Husbandry Research...	2	•
428	Animal Husbandry Research...	2	•
429	Animal Husbandry Research...	2	•

\*See statement.

141. FARM POULTRY CULTURE.—The principles of the following subjects will be studied in the order given: Breeds, housing, feeding, breeding, incubation and brooding, poultry products, diseases, and management. The course will consist of lectures and recitations three hours, laboratory practice three hours a week.

MR. STOUT.

211. **FARM DAIRYING.**—A study of the composition of milk, causes of variation in composition, abnormal milk and its uses, factors in milk products, the lactometer, milk adulteration, the milk testing, milk sanitation, farm butter making, and handling milk products on the farm. Lectures and recitations one hour, laboratory practice six hours a week.

ASSISTANT PROFESSOR MASON.

212. **JUDGING TYPES AND MARKET CLASSES.**—Practice in scoring and market classes of sheep, swine, cattle and horses, with the score card followed by comparative judging. Lectures and recitations one hour, laboratory practice nine hours a week.

ASSISTANT PROFESSOR ———;  
MR. THURBER.

251. **HISTORY OF BREEDS AND PEDIGREES.**—A thorough study of the origin, history, development, breed characteristics, and adaptation of the more important breeds of sheep, swine, cattle and horses; a study of the pedigrees of prominent individuals of the various breeds. Lectures and recitations three hours, laboratory practice four hours a week.

MR. THURBER.

252. **FEEDS AND FEEDING.**—A study of the principles of animal nutrition; digestibility of feeds, composition, value and preparation of feeds; construction and use of silos; selection of feeds for balanced rations; and the economical feeding of all classes of farm animals. Lectures and recitations five hours a week.

PROFESSOR DVORACHEK.

253. **ANIMAL BREEDING.**—A study of the principles of animal breeding, the various systems of animal breeding, and the application of the principles of genetics to practical animal breeding. Lectures and recitations five hours a week.

ASSISTANT PROFESSOR ———.

331. **JUDGING BREED TYPES OF SHEEP AND SWINE.**—Scoring and comparative judging of breed types of sheep and swine. Breed characteristics are given special attention. Animals from the college herds, supplemented by live stock owned by neighboring breeders are used for class work. Laboratory practice nine hours a week.

MR. THURBER.

332. **JUDGING BREED TYPES OF BEEF CATTLE AND HORSES.**—Scoring and comparative judging of breed types of beef cattle and horses. Breed characteristics are given special attention. Animals from the college herds, supplemented by live stock owned by neighboring breeders are used for class work. Laboratory practice nine hours a week.

ASSISTANT PROFESSOR ———.

321. **DAIRY STOCK JUDGING.**—Show yard judging of dairy cattle; classification of animals in the show ring; comparative judging of breed types of dairy cattle. This work is designed to select and train a judging team for the National Dairy Show. Laboratory practice six hours a week.

PROFESSOR DVORACHEK.

431. **ADVANCED LIVE STOCK JUDGING.**—Show yard judging of breed types and market classes of sheep, swine, beef cattle, dairy cattle and horses. This course is designed to select and train judging teams for live stock judging contests. Laboratory practice nine hours a week.

PROFESSOR DVORACHEK.

432. **LIVE STOCK MANAGEMENT.**—Practice in the feeding, care, and management of live stock. This course is designed to train students in the handling of live stock on the farm and in the show ring. Laboratory practice nine hours a week.

PROFESSOR DVORACHEK,  
HERDSMEN.

421. **PORK PRODUCTION.**—An advanced course in pork production both from the standpoint of the general and the special breeder. Problems in management are assigned. Lectures and recitations two hours a week, supplemented by collateral reading of experimental data.

MR. THURBER.

422. **HORSE PRODUCTION.**—An advanced course in horse production, both from the standpoint of the general and the special breeder. Problems in management are assigned. Lectures and recitations two hours a week, supplemented by collateral reading of experimental data.

ASSISTANT PROFESSOR ———.

433. **POULTRY PRODUCTION**—An advanced course in poultry production, including practical experience in the poultry plant. Lectures and recitations two hours and laboratory practice three hours a week.

MR. STOUT.

424. **BEEF PRODUCTION**—An advanced course in beef production both from the standpoint of the general and the special breeder. Problems in management are assigned. Lectures and recitations two hours a week, supplemented by collateral reading of experimental data.

ASSISTANT PROFESSOR ———.

425. **MILK PRODUCTION**—An advanced course in dairy farm management, both from the standpoint of the general and the special dairyman. Problems in management are assigned. Lectures and recitations two hours a week, supplemented by collateral reading of experimental data.

PROFESSOR DVORACHEK.

426. **MUTTON AND WOOL PRODUCTION**—An advanced course in mutton and wool production, both from the standpoint of the farmer and the range sheepman. Problems in management will be assigned. Lectures and recitations two hours a week, supplemented by collateral reading of experimental data.

MR. THURBER.

441. **BUTTER MAKING AND CREAMERY MANAGEMENT**.—This course comprises a study of the principles of creamery butter making, the construction and care of creameries and their equipment, methods of sampling and grading cream, pasteurizing, starter making, cream ripening, and creamery accounting. Lectures and recitations two hours and laboratory practice six hours a week.

ASSISTANT PROFESSOR MASON.

427. **ANIMAL HUSBANDRY RESEARCH**.—Senior students majoring in Animal Husbandry may, with the consent of their major professor, elect this course. Special problems will be assigned. Not more than two credits a term will be allowed for this work.

PROFESSOR DVORACHEK.

428. ANIMAL HUSBANDRY RESEARCH.—A continuation of course 427.

429. ANIMAL HUSBANDRY RESEARCH.—A continuation of course 427 and 428.

## BACTERIOLOGY AND PATHOLOGY

PROFESSOR BLEECKER

COURSES			
No.	Title	Credits	Prerequisites
351	General Bacteriology .....	5	Chemistry 143 Biology 141 (142) (143)
352	Household Bacteriology .....	5	Chemistry 143 Biology 141 (142) (143)
533	Dairy Bacteriology .....	3	Bacteriology 351, 352
524	Pathogenic Microbiology .....	2	Bacteriology 351, 352

351. GENERAL BACTERIOLOGY.—A course in elementary bacteriology so designed as to give the student an understanding of the morphology, classification, and physiological activities of bacteria, and their relation to disease and to various agricultural processes. The student will receive a thorough training in laboratory methods. Lecture three hours and laboratory six hours a week.

PROFESSOR BLEECKER.

352. HOUSEHOLD BACTERIOLOGY.—Introductory study of the morphology, classification, and physiological activities of bacteria, yeasts, and molds will be followed by a study of sanitation and the relation of these micro-organisms to the home. Lecture three hours and laboratory six hours a week.

PROFESSOR BLEECKER.

533. DAIRY BACTERIOLOGY.—A study of the bacterial content of milk and milk products, and the use of bacteria in commercial dairying. Lecture one hour and laboratory four hours a week.

PROFESSOR BLEECKER.

524. PATHOGENIC MICROBIOLOGY.—A detailed study of the disease producing micro-organisms, the diseases they produce,

their dissemination and control. Lectures and demonstrations two hours a week.

PROFESSOR BLEECKER.

## ENTOMOLOGY

ASSISTANT PROFESSOR BAERG

The courses offered in entomology are intended to give the student an understanding of the general principles underlying insect life, of the life economy of the more beneficial as well as of the more injurious species, and of the general principles governing their control.

COURSES			
No.	Title	Credit Hours	Prerequisites
151	General Entomology .....	5	None
242	Economic Entomology .....	4	151
233	Morphology of Insects.....	3	•
234	Elementary Systematic Entomology.....	3	151 or 233
335	Advanced Economic Entomology.....	3	151, 242
326	Household Entomology .....	2	151
337	Advanced Morphology of Insects.....	3	151, 233
338	Histology of Insects.....	3	151*

\*See statement.

151. GENERAL ENTOMOLOGY.—An introductory study of the morphology, habits, and classification of insects. Lectures and recitations three hours a week, laboratory practice three hours a week.

ASSISTANT PROFESSOR BAERG.

242. ECONOMIC ENTOMOLOGY.—A study of the more important insect pests of the orchard, garden, farm crops, and domestic animals, and of standard methods used in controlling these insects. Lectures and recitations two hours a week, laboratory practice three hours a week.

ASSISTANT PROFESSOR BAERG.

233. MORPHOLOGY OF INSECTS.—This course takes up in greater detail the laboratory work of general entomology and is intended for advanced students. Course 151 must precede or accompany it. The course may be substituted for the laboratory of course 151. Laboratory practice six hours a week.

ASSISTANT PROFESSOR BAERG.

234. **ELEMENTARY SYSTEMATIC ENTOMOLOGY.**—A laboratory study of the wing venation of insects and of the more important distinguishing characteristics used in classifying insects. Laboratory practice six hours a week.

ASSISTANT PROFESSOR BAERG.

335. **ADVANCED ECONOMIC ENTOMOLOGY.**—A study of the methods of investigation and control of economic insects. Lectures one hour a week, laboratory practice, assigned reading, and report writing five hours a week.

ASSISTANT PROFESSOR BAERG.

326. **HOUSEHOLD ENTOMOLOGY.**—A study of the life history, habits, and control of insects injurious to the household. Lectures and recitations two hours a week.

ASSISTANT PROFESSOR BAERG.

337. **ADVANCED MORPHOLOGY OF INSECTS.**—A study of the external and internal anatomy and physiology of insects. The course is intended for advanced students. Three lecture hours a week supplemented with assigned reading.

ASSISTANT PROFESSOR BAERG.

338. **HISTOLOGY OF INSECTS.**—A study of insect tissues and methods of preparing such tissues. The course is intended for students preparing for technical work in Entomology. Laboratory six hours a week. This course should be accompanied or preceded by course 337.

ASSISTANT PROFESSOR BAERG.

## HOME ECONOMICS

PROFESSOR PALMER, ASSISTANT PROFESSOR SPEERSTRA, MISS  
DYCHE, MISS HILL, MISS COWAN

COURSES			
No.	Title	Credits	Prerequisites
131, 132, 133	Elementary Sewing .....	9	None
231, 232, 233	Elementary Foods .....	9	Chem. 141-2-3
234, 235, 236	Clothing Economics .....	9	131-2-3
221	Costume Design .....	2	131-2-3, Art 124-5-6
222, 223	Textiles .....	4	131-2-3
331, 332	Food Economics .....	6	231-2-3
334, 335, 336	Dietetics .....	9	331-2-3, Biol. 241-2
340	Home Nursing and Child Care.....	4	None



341	Home Economics Methods .....	4	331-2-3, 234-5-6
			Education 250, 130
441	House Architecture .....	4	Art 124-5-6
442	House Furnishing and Decoration.....	4	131-2-3, 441
*443	Social Work in Home Economics.....	4	131-2-3, 231-2-3
444	Home Making .....	4	331-2
461	Household Management .....	6	331-2, 131-2-3
*511 to 541	Special Problems .....	14	See Statement
521	Millinery .....	2	131-2-3
522	Art Needlework .....	2	234-5-6
523, 524, 525	Elementary Cooking .....	6	None

131, 132, 133. **ELEMENTARY SEWING**—A course designed to give ease in using and caring for sewing machines, in taking accurate measurements, and in adapting commercial patterns. It also includes the comparison and selection of materials for their appropriateness, as well as their economic value. Lectures and laboratory six hours a week.

MISS HILL AND MISS COWAN.

231, 232, 233. **ELEMENTARY FOODS**—A study of the principles involved in the preparation of foods, with special attention to selection and manufacture. Lectures and recitations two hours, laboratory four hours a week.

MISS DYCHE.

234, 235, 236. **CLOTHING ECONOMICS**—Instruction in the technique and principle of costume design and their practical application in the design and construction of garments; the use by each student of patterns drafted by herself to her own measurements. Lecture and laboratory six hours a week.

MISS HILL.

221. **COSTUME DESIGN**—A study of the principles of design and color harmony applied to costume. A short review of the history of costume. Lecture and laboratory two hours a week.

MISS HILL.

222, 223. **TEXTILES**.—A study of the source of supply, structure, manufacture, and relative value of fabrics. Laboratory practice in weaving, in the identification of fibers and the analysis of fabrics from the standpoint of composition and weave structure. Lecture one hour, laboratory two hours a week.

MISS COWAN.

331, 332. **FOOD ECONOMICS.**—Economic problems of the food supply; cost and nutritive value of typical foods; the study of dietaries; preparation and service of meals. Lectures and recitations two hours, laboratory four hours a week.

MISS DYCHE.

334, 335, 336. **DIETETICS.**—The chemistry and physiology of metabolism; the fundamental principles of human nutrition as applied to the feeding of individuals under normal conditions and under pathological conditions chiefly depending upon diet. Lectures and recitations two hours, laboratory two hours a week.

MISS SPEERSTRA.

340. **HOME NURSING AND CHILD CARE.**—Elementary principles in the care of the sick, care and arrangement of the bedroom, food for the convalescent, and first aid. Lecture three hours, laboratory two hours a week.

MISS PALMER.

341. **HOME ECONOMICS METHODS.**—The treatment of methods for teaching foods and clothing. The work includes discussion of the development of the home economics movement, courses of study, current textbooks, the method of demonstration. Lectures and recitations four hours a week.

MISS PALMER.

441. **HOUSE ARCHITECTURE.**—The course includes a detailed study of the situation, surroundings, and construction of the house. Complete skeleton plans are made. Lectures and laboratory four hours a week.

MISS SPEERSTRA.

442. **HOUSE FURNISHING AND DECORATION.**—The principles of design and color applied to interior decoration; problems in the cost and selection of floor and wall finishes, hangings, and furniture. Lecture two hours, and laboratory four hours a week.

MISS HILL.

443. **SOCIAL WORK IN HOME ECONOMICS.**—A survey of the fundamental laws of heredity and environment; the relation of social conditions to morality, factors influencing the conserva-

tion of human life. Topics assigned. Open to seniors and juniors. Lectures and recitations four hours a week.

MISS COWAN.

444. HOME MAKING.—The home as a social unit; ancient and modern customs and laws governing the home. Individual topics assigned. Open to juniors and seniors. Lecture one hour, laboratory six hours a week.

MISS SPEERSTRA.

461. HOUSEHOLD MANAGEMENT.—A study of the social, economic and practical problems of home management. The laboratory work consists of experience in performing actual household operations, including budget making, accounting, and marketing. Topics assigned. Lectures three hours and laboratory six hours a week.

MISS SPEERSTRA.

511. SPECIAL PROBLEMS.—A senior may elect some special problem in her major subject for special research. The course will require special conferences with the instructor. Open to seniors and graduate students.

MISS HILL.

521. MILLINERY. In this course are taught the designing and drafting of patterns for different types of hats, including the principles underlying their construction and trimming. A model of each type is made by each student. Lectures and laboratory four hours a week.

MISS HILL.

522. ART NEEDLEWORK.—Instruction and practice in the various types of Art Needlework and the application of these types. Lectures and laboratory four hours a week.

MISS HILL.

523, 524, 525. ELEMENTARY COOKING.—A study of the typical foods and their preparation with special reference to their nutritive value. Lecture one hour, laboratory three hours a week.

MISS DYCHE.

\*NOTE. Students will have to bear expense of course whatever it may be. In case of H. E. 444 and 461 it will be living expenses in the Home Management House.

## HORTICULTURE

PROFESSOR COOPER, ASSISTANT PROFESSOR ROBERTS

ASSISTANT PROFESSOR —————

The courses offered in this department are designed to give the student a thorough working knowledge of the principles and practices of the different phases of horticulture. The work is so arranged that it will meet the needs of students interested along practical lines or of students who desire a technical knowledge of the subject as a preparation for college or research work.

Students who have had the necessary fundamental training in related subjects and who desire to fit themselves for teachers or investigators may receive employment during a part of their time in the laboratory and fields of the Experiment Station.

## COURSES

No.	Title	Credits	Prerequisites
141	Plant Propagation and Culture.....	4	None
244	Fruit Growing and Landscape Gardening	4	Hort. 141
237	Floriculture .....	3	
238	Landscape Gardening	3	Hort. 141, 244
239	Landscape Gardening	3	Hort. 141, 244, 238
341	Practical Pomology ..	4	Hort. 141, 244
342	Practical Pomology .	4	Hort. 141, 244, 341
343	Practical Pomology	4	Hort. 141, 244, 341, 342
347	Vegetable Gardening	4	Hort. 141, 244
348	Vegetable Gardening	4	Hort. 141, 244, 347
349	Vegetable Gardening	4	Hort. 141, 244, 347, 348
435	Systematic Pomology .	3	Hort. 341, 342, 343
436	Evolution of Cultivated Plants and Plant Breeding	3	Hort. 341, 342, 343 or 347, 348, 349
337	Spraying and Spray Materials	3	
541	Experimental Horticulture	1-4	
542	Experimental Horticulture	1-4	
543	Experimental Horticulture	1-4	

141. PLANT PROPAGATION AND CULTURE.—A study of the methods employed in reproducing and multiplying plants, seed age, graftage, construction and management of hotbeds and cold frames, and general nursery and garden practices. Two hours preparation. Two hours lecture. Four hours laboratory.

ASSISTANT PROFESSOR ROBERTS.

244. FRUIT GROWING AND LANDSCAPE GARDENING.—A study of the principles of fruit growing and landscape gardening, manipulation of plants, planning and planting the orchard, garden and home grounds, management and care of lawns, and pro-

duction, arrangement, and care of plants for outside home decoration. Two hours preparation. Two hours lecture. Four hours laboratory.

PROFESSOR COOPER.

237. FLORICULTURE.—Propagation, cultivation, and management of decorative and flowering plants for the house, conservatory, greenhouse and garden. Two hours preparation. Two hours lecture. Two hours laboratory.

PROFESSOR COOPER.

238. LANDSCAPE GARDENING.—A study of planting materials and their arrangement in landscape gardening, with reference to farm and city homes and school grounds. Two hours preparation. Two hours lecture. Two hours laboratory.

PROFESSOR COOPER.

239. LANDSCAPE GARDENING.—A continuation of course 238. One hour preparation. One hour lecture. Four hours laboratory.

PROFESSOR COOPER.

341. PRACTICAL POMOLOGY.—A study of the general and fundamental principles of fruit growing and of the practical problems in handling commercial plantations. The student is expected to become proficient in the various practical operations concerned, such as pruning, spraying, grading, and packing, and to understand the principles of storage and marketing. Two hours preparation. Two hours lecture. Four hours laboratory. Juniors and seniors.

PROFESSOR COOPER,  
ASSISTANT PROFESSOR ROBERTS.

342. A continuation of course 341.

PROFESSOR COOPER,  
ASSISTANT PROFESSOR ROBERTS.

343. A continuation of course 341 and 342.

PROFESSOR COOPER,  
ASSISTANT PROFESSOR ROBERTS.

347. VEGETABLE GARDENING.—A study of the general and fundamental principles of vegetable growing and of the practical problems in handling the various vegetable crops. Each of the

principle vegetable crops will be taken up from the standpoint of planting, cultural methods, soils and fertilizers, insect and disease control, and harvesting and storing on a commercial scale. Two hours preparation. Two hours lecture. Four hours laboratory. Juniors and seniors.

ASSISTANT PROFESSOR ROBERTS.

348. **VEGETABLE GARDENING.**—A continuation of course 347.

ASSISTANT PROFESSOR ROBERTS.

349. **VEGETABLE GARDENING.**—A continuation of courses 347 and 348.

ASSISTANT PROFESSOR ROBERTS.

435. **SYSTEMATIC POMOLOGY.**—A study of the systematic classification, nomenclature, history, origin, and adaptability of each of the various fruits with practical work in judging. Two hours preparation. Two hours lecture. Two hours laboratory.

PROFESSOR COOPER.

426. **EVOLUTION OF CULTIVATED PLANTS AND PLANT BREEDING.**—A study of the organic evolution as applied to the modification of plants, particularly of cultivated fruits and vegetables, together with the history of the plants and a study of their environment and original habitat. Plant breeding, two hours preparation, two hours lecture, two hours laboratory.

PROFESSOR COOPER.

337. **SPRAYING AND SPRAY MATERIALS.**—This course is designed to give a thorough practical knowledge of insecticides and fungicides and methods of application for the control of insects and fungus diseases, together with practice in operating the various kinds of spraying machinery and equipment. One hour preparation. One hour lecture. Four hours laboratory.

PROFESSOR COOPER.

541. **EXPERIMENTAL HORTICULTURE.**—Assigned problems in horticulture. Research work in the laboratory or fields, with practice in completing data and drawing conclusions. Hours for consultation.

PROFESSOR COOPER.

542. **EXPERIMENTAL HORTICULTURE.**—A continuation of course 541.

PROFESSOR COOPER.

543. EXPERIMENTAL HORTICULTURE.—A continuation of course 541 and 542. PROFESSOR COOPER.

## PLANT PATHOLOGY

PROFESSOR ELLIOTT, ASSISTANT PROFESSOR ROSEN.

### COURSES

No.	Title	Credits	Prerequisites
331	Plant Pathology	3	Botany 141, 142, 143
332	Plant Pathology	3	331 and Bot. 141, 142, 143
*432	Morphology of Fungi	5	Botany 141, 142, 143
*433	Systematic Mycology	5	Botany 141, 142, 143
434	Diseases of Forest Trees	5	331, 332
*435	Plant Pathology Methods	3	331, 332, Bact. 351
*436	Plant Pathology Methods	3	435, 331, 332, Bact. 151
*437	Plant Pathology Methods	3	435, 436, 331, 332, Bact. 351
*536	Pathological Plant Anatomy	3-5	331, 332, 452, 453.
*537	Pathological Plant Anatomy	3-5	536, 331, 332, 452, 453
*538	Pathological Plant Anatomy	3-5	536, 537, 331, 332, 452, 453

\*Elective graduate courses.

331. PLANT PATHOLOGY.—A study of diseases of plants in relation to parasites and environment; conditions inducing disease and the reaction of diseased organism; and the methods of disease control. Lectures and recitations two hours, laboratory practice three hours a week.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

332. PLANT PATHOLOGY.—A continuation of course 331

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

432. MORPHOLOGY OF FUNGI.—A study of the forms and structure of fungi. Representatives of the principal genera will be chosen for this course. Lecture and recitation one hour, laboratory practice eight hours a week.

ASSISTANT PROFESSOR ROSEN.

433. SYSTEMATIC MYCOLOGY.—Identification and classification of fungi with special reference to plant parasites and species found in Arkansas. Lecture and recitation one hour, laboratory practice eight hours a week.

PROFESSOR ELLIOTT.



454. DISEASES OF FOREST TREES.—A study of the important root, stem, and leaf diseases of forest trees with special emphasis on timber rots. Lecture and recitation one hour, laboratory practice eight hours a week.

ASSISTANT PROFESSOR ROSEN.

435. PLANT PATHOLOGY METHODS.—A study of the preparation of various artificial nutrient media and the technique of isolating and culturing parasitic fungi and bacteria. Emphasis will be placed on bacteria in relation to plant diseases. Lectures and recitations one hour, laboratory practice four hours a week throughout the year.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

436. PLANT PATHOLOGY METHODS.—A continuation of course 435.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

437. PLANT PATHOLOGY METHODS.—A continuation of courses 435 and 436.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

536. PATHOLOGICAL PLANT ANATOMY.—A study of the structure of diseased and dead host tissues with relation to the disease producing organism. Offered only to students who major in Plant Pathology or Botany, or for graduate credit.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

537. PATHOLOGICAL PLANT ANATOMY.—A continuation of course 536.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

538. PATHOLOGICAL PLANT ANATOMY.—A continuation of courses 536 and 537.

PROFESSOR ELLIOTT,  
ASSISTANT PROFESSOR ROSEN.

## VETERINARY SCIENCE

PROFESSOR GOW, ASSISTANT PROFESSOR SYFFERD

		COURSES	Credits	Prerequisites
No.	Title			
331	Animal Physiology .....		3	None
332	Comparative Anatomy .....		3	331
333	Animal Diseases .....		3	331, 332

331. ANIMAL PHYSIOLOGY.—This course is intended to give the student a useful knowledge of the functions of the body of the various farm animals so that he can realize and understand the benefits to be derived from the judicious application of proper breeding, feeding, and care of farm stock. Lectures and recitations three hours a week.

ASSISTANT PROFESSOR SYFFERD.

332. COMPARATIVE ANATOMY.—This course is planned to give the student a general idea of the anatomy of farm animals, together with comparative references to many structures of the human body. Lectures and recitations two hours, laboratory practice three hours a week.

ASSISTANT PROFESSOR SYFFERD.

333. ANIMAL DISEASES.—A study of infectious and non-infectious diseases, their causes, symptoms, and prevention; lameness, its causes, diagnosis, prevention and cure; obstetrics; simple surgery; sanitation; State and Federal live stock regulations. Lectures and recitations, two hours; laboratory practice, three hours a week.

ASSISTANT PROFESSOR SYFFERD.

# AGRICULTURAL EXPERIMENT STATION

## PURPOSE

The purpose of the Experiment Station is to determine facts, work out problems, and make investigations that have a bearing upon the agriculture of the state and the country in general. The results of investigations are published in bulletin form and distributed free. All information in possession of the various departments of the institution is available to citizens of the state upon request. The farmer is in this way relieved of the time, labor, and expense involved in working out experiments for himself. He also receives the benefit of facts that only the best trained specialists are capable of determining. Practically all of the agricultural information that we possess and put into practice is based upon experiment station effort.

## STAFF

The working staff of the Experiment Station is practically identical with the teaching force of the College of Agriculture. Members of the staff are required to do both teaching and research work in their respective fields. The work of the station is continuous throughout the year. Research work constitutes the major burden of the staff.

The *Department of Agronomy* carries on investigations with farm crops, testing and breeding new and pure varieties of cotton, corn, grains, grasses for hay and pasture, clovers, and other agricultural crops. It also conducts experiments in soil fertility and the management of soils for different crops. This work is carried on at the experimental farms at the main station and the sub-station. A special feature is the work with cotton and corn at the sub-station at Scotts.

The *Department of Animal Husbandry* carries on investigations in feeding, breeding and management of farm animals, including poultry. Well selected herds of dairy cattle, beef cattle, and hogs are maintained for this purpose. A well equipped and well stocked poultry plant is also maintained. In connection with this department, a model dairy, equipped with improved dairy

machinery and laboratories, is conducted for instructional and experimental purposes.

The *Department of Bacteriology* conducts investigations and research relative to the causes and character of animal diseases and means of combating them.

The *Department of Agricultural Chemistry* carries on investigations in the application of chemistry to agriculture. Its laboratories are fitted with improved modern apparatus.

The *Department of Entomology* conducts investigations in life histories of insects injurious to agriculture and methods of exterminating such insects.

The *Department of Horticulture* is equipped with grounds, machinery and laboratories suitable for conducting experiments in fruit growing and vegetable gardening. Problems of practical importance are worked upon experimentally to aid the grower in his cultural work. Variety study of fruits and vegetables, pollination of the apple, orchard fertilization, pruning and grading and packing experiments are major projects for experiments in this department.

The *Department of Plant Pathology* carries on investigations of plant diseases with reference to their nature, cause of development, and means of combating and eradicating them. The department is equipped with excellent apparatus for its investigations.

The *Department of Veterinary Science* supervises state inspection for contagious diseases of animals and for the eradication of cattle tick. It operates the state serum plant and supplies serum at cost; it investigates also the best means of checking and stamping out diseases of animals.

## AGRICULTURAL EXTENSION DIVISION

W. C. LASSETTER, *Director.*

C. W. WATSON, *Assistant Director.*

B. C. RILEY, *Editor of Publications.*

A. W. BOYER, *Assistant Editor of Publications.*

### COUNTY AGENT WORK

J. C. BARNETT, *District Agent.*

H. F. KAPP, *District Agent.*

J. E. MCKELL, *District Agent.*

H. K. THATCHER, *District Agent.*

S. P. WEIGART, *District Agent.*

*Seventy-two County Agents.*

### HOME DEMONSTRATION AGENT WORK

MISS CONNIE J. BONSLAGER, *State Home Demonstration Agent.*

MISS HELEN S. BROWN, *District Agent.*

MISS SALLIE CHAMBERLAIN, *District Agent.*

MISS NELL MINTON, *District Agent.*

MISS CARRIE PLUNKETT, *District Agent.*

MRS. ELIZABETH TEMPLE, *District Agent.*

MISS GERTRUDE CONANT, *Specialist in Nutrition.*

MRS. RUTH PECK MCLEOD, *Urban Emergency Agent.*

MISS RUTH GORDON, *Urban Emergency Agent.*

MISS LUCY M. QUEAL, *Urban Emergency Agent.*

MISS LILLIAN TAYLOR, *Urban Emergency Agent.*

*Fifty-eight County Home Demonstration Agents.*

### BOYS' CLUB WORK

W. J. JERNIGAN, *Ass't. State Agent in Charge Boys' and Girls' Club Work.*

H. K. SANDERS, *Field Agent in Swine Husbandry.*

T. ROY REID, *Ass't Boys' Club Agent.*

E. B. WHITAKER, *Ass't Boys' Club Agent.*

†G. W. BACOT, *Field Agent in Swine Husbandry.*

H. P. WOOD, *Field Agent in Swine Husbandry.*

SPECIALISTS

- G. G. BECKER, *Entomologist.*  
 J. H. BUX, *Hog Cholera Control.*  
 M. R. ENSIGN, *Plant Pathologist.*  
 \*LAWRENCE FOOT, *Curing and Marketing Meat.*  
 PAUL JOHNSON, *Assistant Veterinarian.*  
 VERNON H. KERN, *Specialist in Farm Machinery.*  
 J. S. KNOX, *Horticulturist.*  
 H. B. LANSDEN, *Poultry Husbandry.*  
 J. H. MCLEOD, *Leader in Livestock Extension.*  
 †LOUIS SAWYER, *Beef Cattle Production.*  
 †L. C. PALMER, *Beef Cattle Production.*  
 J. B. PEERY, *Beef Cattle Production.*  
 A. E. TALBOT, *Dairy Specialist.*  
 J. H. TULL, *Field Agent in Marketing.*  
 W. H. WOODLEY, *Dairy Specialist.*

NEGRO WORKERS

- H. C. RAY, *District Agent.*  
*Ten Local Agents.*  
 MARY RAY, *District Agent.*  
*Eight Local Home Demonstration Agents.*

\*Deceased.

†Resigned to enter military service.

AGRICULTURAL EXTENSION SERVICE

PURPOSE. The leading purpose of all colleges and universities, until within the last quarter century, was to educate a few boys and girls of the best classes of society for the scholarly or professional vocations. Until very recently the public did not expect even its own public educational institutions to perform any service beyond the teaching of those who voluntarily sought instruction within their walls. A broader and nobler idea has recently influenced the activities of state universities and colleges, namely, that of serving all of the people. The College of Agriculture desires to extend its campus to the limits of the state and for that reason the Division of Agricultural Extension was organized.

**SOURCES OF MAINTENANCE.** The Division of Agricultural Extension is supported jointly by the College of Agriculture of the University of Arkansas and the United States Department of Agriculture under the provisions of the Smith-Lever Act passed by Congress in June, 1914. In addition to the federal funds appropriated by the College of Agriculture for conducting extension work, and the state funds appropriated as an offset to the federal appropriations, the Department of Agriculture, through the States Relations Service, has allotted to the Division of Extension certain sums to be used in the furtherance of the work.

**SCOPE OF WORK.** The Division of Agricultural Extension endeavors to reach the maximum number of people throughout the state and for that purpose several lines of activities are planned. Among these are the county agent work, the home demonstration agent work, boys' and girls' club work, home economics study clubs, farm meetings, marketing service, farmers' clubs, farm schools, cooking schools, curing and marketing of meats, farm management, and personal instruction on the part of specialists in the various lines of agricultural study. The basis of agricultural extension work is actual practical demonstrations since this has been found through experience to be the most effective method. This applies also to other phases of extension work.

**COUNTY AGENTS.** The farm demonstration work is conducted through the organization of county agents who are made responsible for the agricultural interests of the counties to which they are assigned, and whose duty it is to conduct demonstrations in the growing of the various farm crops adapted to the county, in the introduction, care, and management of live stock, in farm management, in marketing, in the organization of community clubs for the promotion of community betterment work, in conducting boys' corn, cotton, peanut, and pig clubs, and for the giving of instruction in any other way advisable and effective in their counties.

**COUNTY HOME DEMONSTRATION AGENTS.** For this work, women trained in home economics and having ability in dealing with household problems and matters affecting the home are employed, according to the plan of the county agents' work



Their duties lie in giving instruction in those things pertaining to the welfare of the home. They organize girls' tomato and garden clubs, teach women and girls to can the fruits and vegetables, organize women's home demonstration clubs and through these organizations teach the best methods pertaining to home work. Their entire work looks to the welfare of the homemakers through giving instruction in good housekeeping.

Two-day cooking schools in home economics, where instruction in matters of great importance to the housekeeper is given, are held by specialists in this field. These schools are available to any community in the state upon request.

**BOYS' AND GIRLS' CLUBS.** Specialists in club work are provided for the proper supervision of the boys' and girls' club work and to assist the county agent and home demonstration agents in organizing and properly developing this work. This service is designed to teach the boys and girls the simplicity of ways for improving the farm and home, to open up to them a brighter view of the future and to inspire them with the desire to remain on the farm and develop it to its fullest possibilities. This may be viewed as the initial step in the teaching of agriculture in that it reaches the boys and girls between the ages of ten and eighteen before they have had the opportunity to secure such training in the schools and colleges.

**SPECIALISTS.** The county agent and home demonstration agents are required to solve the people on all problems, and their training, therefore, must be general. Since this involves a high degree of specialization, it is necessary to supply assistance through men trained in more highly specialized fields. This service to the county agents is necessary to enable them to handle some of the more difficult problems of their counties. Specialists, therefore, are supplied in livestock, soils and crops, horticulture, and home economics.

**FARMERS' MEETINGS.** In season it is intended that the extension service through farmers' meetings shall reach every county in the state. Special cooperative fairs, those of greatest importance are organized and promoted in season. This work is pushed at times when farm work is the lightest.

**MARKETING SERVICE.** In cooperation with the Office of Markets and Rural Organization, a specialist in marketing is pro-

vided to assist farmers in securing markets for their products. This service is designed to bring the producer and the buyer into touch with each other, but the Division of Extension takes no further part in consummating sales. The marketing service goes further in that it encourages the organization of groups of farmers for the production of various products in carload lots and gives instruction in the proper grading and packing of fruits and other farm products. During the fall, special assistance is detailed by the Office of Markets for the purpose of grading and classifying cotton for the benefit of the farmers. The marketing of any farm product will be included in the activities of this sphere of extension work.

**CURING AND MARKETING OF MEATS.** A specialist in the Division of Extension has given instruction to ice plants in the state and assisted them in so arranging their plants as to utilize waste space in the curing of meats and has instructed them in the best methods for this purpose. This has opened a market for the small farmer and in this way has encouraged a greater production of hogs.

**LIVESTOCK INTRODUCTION.** Because of certain economic factors not under control, the class of livestock in Arkansas has been decidedly poor. With the control of the disturbing factors, the necessity arose for the introduction of pure-bred breeding stock. The livestock specialists have turned their attention to that matter and through special organization work in many counties have introduced many carloads of good breeding stock and through farmers' meetings, the press, and otherwise, have developed a strong public sentiment in favor of this work. The boys' pig club work is one of the greatest factors in the introduction of pure-bred hogs.

**FARM MANAGEMENT.** Preliminary surveys of farms in some sections of the state have shown that the profits are far from what they should be. Farm management studies naturally should be one of the foremost of agricultural teachings. Proper investigation of farm management conditions and the teaching of the best methods of farm management are of utmost importance. This work is provided for through the employment of a specialist in farm management.

**FARM IMPLEMENTS.** Economy in any business undertaking demands the use of labor saving machinery of the most approved type. A specialist, therefore, is provided to make a careful survey of each of the sections of the state with a view to determining the types of farm implements of greatest economic value to those sections, and for giving instruction in the use of machinery of these improved types. This service will be extended to the farmer through demonstrations and to the retail dealers as well.

**AGRICULTURAL NEWS SERVICE.** Agricultural facts must be placed before the people. The Arkansas press affords one of the most effective means for reaching the greatest number of people. The co-operation of the press is utilized through supplying to the three hundred twenty-five papers of the state weekly paragraphs on better farming. In addition to this, one hundred twenty papers of the state receive one column of agricultural material each week set up in plate form, ready to print. Special articles dealing with seasonal topics are prepared for the county papers. Special articles for the daily papers of the state are prepared in order that facts may be brought before a large number of people. Further than this, the Division of Extension issues publications from time to time which are available to the people of the state upon application.

# SCHOOL OF MEDICINE

## HISTORY

The School of Medicine was organized at Little Rock in 1879. In 1911 it was consolidated with the College of Physicians and Surgeons and by an act of the general assembly became the School of Medicine of the University of Arkansas.

## ADMISSION

Admission requires a four years high school education, and, in addition, two years of college work as set forth below.

## HIGH SCHOOL REQUIREMENTS

Four years work in an accredited high school or its full equivalent, comprising not less than fourteen Carnegie units \* (15 units after January 1, 1920), in acceptable subjects including prescribed work, as follows:

English----- 3 units

Algebra----- 1 unit

Plane Geometry----- 1 unit

Latin, Greek, French, German or other

foreign language----- 2 units (both units in the same language)

History----- 1 unit

Electives----- 6 units (after January 1, 1920, seven units)

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Total----- 14 units (after January 1, 1920, 15 units)

Deficiencies in any of the above prescribed high school work may be made up by extra college work in the same subjects.

## COLLEGIATE REQUIREMENTS

Two years work in a recognized college or university, comprising not less than sixty semester hours<sup>†</sup>, including prescribed subjects, as follows:

Chemistry (See Note A.)	12	semester hours*	
Physics (See Note B.)	8	"	"
Biology (See Note C.)	8	"	"
English (See Note D.)	6	"	"
Electives (See Notes E. and F.)	26	"	"
<hr/>			
Total	64	"	"

\*A unit in a subject is the credit value of work in that subject for four recitation periods per week for thirty-six weeks. Each recitation period must be at least forty minutes in length.

†A semester hour is the work represented by one class period per week for half of the college year (at least thirty-two weeks). Each laboratory period to be so evaluated must extend over at least two hours.

**Note A. CHEMISTRY.**—Of the twelve hours at least eight semester hours must be in general inorganic chemistry, and at least four semester hours must be laboratory work. The remaining hours may consist of analytical or organic chemistry.

**Note B. PHYSICS.**—At least two of the eight semester hours must consist of laboratory work. The requirement may be satisfied by six semester hours of college physics, of which at least two must be laboratory work, if preceded by one year (one unit) high school physics.

**Note C. BIOLOGY.**—At least four of the eight semester hours must be laboratory work. This requirement may be satisfied by eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany, but not by work in botany alone.

**Note D. ENGLISH.**—The normal forty-six hour college course of six semester hours in English composition and literature or its equivalent is required.

**Note E. FRENCH, SPANISH, ITALIAN OR GERMAN.**—French is preferred, and students are strongly urged to secure a working knowledge of this language. This will ordinarily require at least two years work in the high school, followed by at least six semester hours work in the same language in college, or two years work (at least twelve semester hours), if the language was not begun in the high school.

**Note F. ELECTIVES.**—As desirable electives, the following subjects are suggested: Additional English; chemistry; zoology;

psychology; an additional modern language; economics; college algebra, and trigonometry; sociology; history; political science; logic; Latin; Greek; drawing.

#### CONDITIONS NOT PERMITTED

No substitutes are allowed for the above prescribed subjects. No entrance conditions are permitted.

Candidates for admission who, in June, 1919 have completed the above requirements, with the exception of a few hours of college subjects, should plan to make up their deficiencies by attendance at a summer session during the summer of 1919.

#### COURSE OF STUDY

The School of Medicine offers a four-year course leading to the degree of *Doctor of Medicine* (M. D.).

The candidate must meet the entrance, residence, and registration requirements; must be twenty-one years of age; and must present satisfactory evidence of good moral character. The candidate must have attended and satisfactorily completed four courses of lectures, no two of which shall have been attended in the same calendar year. Three years of the required work may have been done in some other medical college of recognized standing whose requirements are equivalent to those of this college. The senior year must be done in residence at this college.

The School of Medicine will grant the degree of *Bachelor of Science in Medicine* (B. S.) to students who have complied with the following requirements:

1. The student must have completed two full years of work leading to the bachelor's degree in the University of Arkansas or some other standard college or university, maintaining an entrance requirement of not less than fourteen standard high school units and requiring not less than sixteen hours of recitations and lectures per week in the college course.

2. The student must have included in his two years of preliminary college work all the subjects required for entrance to the first year of the School of Medicine of the University of Arkansas.

3. The student must have completed all of the work in the

first two years of the medical course in the School of Medicine of the University of Arkansas.

4. This degree shall not be conferred upon any except persons who are at the present time students in the School of Medicine of the University of Arkansas or upon those who shall enter that college hereafter.

#### FEEES AND EXPENSES

Tuition Fee, per annum-----\$50.00

There are no other fees, but a ten dollar deposit to cover breakage, is required. After the necessary deductions, the balance of the deposit is refunded.

Board and lodging, including fuel and lights, may be had at a cost of five to seven dollars a week or of twenty to thirty dollars a month.

#### BUILDINGS AND EQUIPMENT

The main building, erected in 1890, is a three-story brick structure containing a lecture hall, amphitheatre, museum, dissecting room, and laboratories. A second building, occupied chiefly by laboratories, has been outgrown, and the old state capitol is used for laboratories of chemistry, embryology, histology, physiology, pathology, bacteriology, clinical microscopy, surgical pathology, and pharmacology. These laboratories are well equipped with new apparatus and supplies. The space is ample and the rooms are well lighted.

#### HOSPITAL AND CLINICAL FACILITIES

*Logan H. Roots Memorial Hospital.* This public city hospital was founded by the late Logan H. Roots. Closed corridors connect the hospital with the college building. The medical and surgical treatment of all cases in this hospital is now entirely controlled by the Medical School.

*Pulaski County Hospital.* This hospital is situated in the southwestern part of the city and has a capacity of two hundred beds. A feature of the hospital is the cottage treatment of tuberculosis.

The *Arkansas State Hospital for Nervous Diseases* has more than 2,200 patients that are available for teaching purposes. The



institution maintains a two-hundred bed hospital for those of its inmates that are acutely ill. Nervous and mental bedside clinics are held weekly throughout the year for the senior class. An adequately equipped necropsy room is maintained in which autopsies are held.

*Isaac Folsom Clinic.* This clinic was named in honor of the late Dr. Isaac Folsom, in consideration of his gift of an endowment of \$20,000. This clinic is under the direct and exclusive control of the faculty, and all its material is available for teaching purposes.

*St. Vincent's Infirmary.* St. Vincent's Infirmary, designed solely for the treatment of acute disease, has a capacity of nearly two hundred beds. The hospital is splendidly equipped and conveniently situated. It is under the supervision and management of Sisters of Charity who are trained nurses.

*State Institutions.* All the eleemosynary institutions of the state are situated in Little Rock. These include the School for the Blind, the School for Deaf Mutes, the State Hospital for Nervous Diseases, the Penitentiary, the Reform School, County and City Hospitals, all of which contribute to the available clinical material.

#### HOSPITAL APPOINTMENTS

The following hospital appointments are made annually: Logan H. Keas Memorial Hospital, two resident physicians; University Hospital, two resident physicians; St. Vincent's Infirmary, two interns; Pulaski County Hospital, four interns; State Hospital for Nervous Diseases, ten interns. Appointments are made by competitive examinations open to graduates of the School of Medicine.

#### ANNOUNCEMENT

For further information in regard to the School of Medicine, address the Dean of the School of Medicine, University of Arkansas, Little Rock, Arkansas.

# BRANCH NORMAL COLLEGE

## HISTORY

The Branch Normal College is situated at Pine Bluff, Arkansas. It was established pursuant to an act of the General Assembly of Arkansas, April 27, 1873, and has been in operation since 1875.

Its purpose is to provide industrial education and to train teachers for efficient service in the colored public schools of the state.

## BUILDINGS AND EQUIPMENT

The school property consists of twenty acres of land in the western suburbs of Pine Bluff.

The buildings include a two-story school building, containing an assembly hall; well equipped mechanical shops; a dormitory for women; a dormitory for men; a primary training school and a two story girls' industrial building.

## ADMISSION

Candidates for admission must be at least thirteen years of age and must pass a satisfactory examination in arithmetic, English grammar, geography, and United States history, such as is covered in the fifth grade. Those coming from other schools must furnish evidence of satisfactory deportment and class standing.

## COURSES OF STUDY

*Preparatory Department.* In the preparatory department the foundation academic subjects are studied. The work corresponds to that of the sixth, seventh, and eighth grade of the school.

*Normal Department.* The purpose of the normal department is to prepare students for teaching. Admission is based upon the completion of the preparatory course. Students who pass the prescribed course of study satisfactorily will be awarded a teacher's certificate.

*Industrial Department.* Beginning with the second year in the preparatory department, all students are required to pursue certain industrial courses. The industrial work extends through four years, and the completion of the work is attested by a certificate of efficiency.

Young men do shop work in mechanic arts, carpentry, and cabinet making, and have the opportunity to become skilled auto mechanics, blacksmiths, machinists, engineers, or firemen.

Young women are taught plain sewing, cutting and fitting, art needlework, cooking and millinery.

*Agricultural Department.* In this department two courses of study are offered, one designed especially for students who are preparing to teach in the public schools, and a second course, for those who wish to specialize in agriculture. The latter course includes work in agronomy, farm economics, and kindred subjects.

#### FEES AND EXPENSES

Marticulation fee (paid annually by all students) .....	\$5.00
Entrance fee (paid annually by all non-resident students and by all others who do not hold beneficiary ap- pointments) .....	5.00
Dormitory fee (including board, fuel, and light, paid by all women students at the beginning of each month) .....	12.00
Student activity fee (paid by all students at the begin- ning of the year) .....	1.00

Beneficiary students may be appointed by the county judge of each county in the state. Students who receive these appointments pay no entrance fee.

#### ANNOUNCEMENT

For further information in regard to the Branch Normal College, address the Superintendent, Branch Normal College, Pine Bluff, Arkansas.

# DEGREES, DIPLOMAS AND CERTIFICATES

Class 1918

## MASTER OF ARTS

Juliette Edla Mather

Dana Porter Weld

## BACHELOR OF ARTS

James W. Amis  
A. B. Armstrong  
Mark Bishop  
Martha Evaline Campbell  
Rufus L. Cherry  
Bernice Gilbreath  
Marjorie Alice Gold  
Bernice Greaves  
Mary Hemphill  
Pauline R. Hoeltzel  
Gladys Hollabaugh  
David Porter Holmes  
Ruth Isabel Howell  
Hugh M. Lawson  
Dorothy McDonald

James P. McGaughy  
Pearl Middlebrooks  
Emmet E. Mitchell (Class of 1917)  
William Moore Mitchell  
Robert E. Morgan  
Orchid Erie Peden  
Adele Ramsey  
Fay Swogger Rankin  
Eunice Rodgers  
Lela Pearl Sailor  
Ernest E. Stevenson  
Beatrice Summers  
Margaret Wilson  
Bess Pauline Wolf

## BACHELOR OF SCIENCE IN EDUCATION

Kate Campbell

Fannie Daniel

## BACHELOR OF CIVIL ENGINEERING

George A. Cantrell

Elmo Lloyd Parker

Rufus Chester Harding (Class of 1915)

## BACHELOR OF ELECTRICAL ENGINEERING

Jesse Clarence Douthit  
A. Olin Evans

Hale Henry Robison  
Ernest P. O'Neal

## BACHELOR OF SCIENCE IN AGRICULTURE

John E. Casey  
James A. Clark  
Julian M. Dyer  
Irvin J. Heath

Paul Killian Heerwagen  
William Wilson  
George Wood Winfrey

## BACHELOR OF SCIENCE IN HOME ECONOMICS

Gladys M. Dowell

Aileen McCoy  
Irene Henrietta Nelson

## TEACHERS' CERTIFICATE

Margaret Alexander  
 Pearl Atkinson  
 Helen Baker  
 Marie Bird  
 Thelma Fleming Bishop  
 Mae Boysen  
 Gladys Briscoe  
 Ada L. Browne  
 Pauline Cravens  
 Elizabeth Crockett  
 Katherine Peel Deane  
 Margie Deene  
 Estella Evatt  
 Jessie Freyschlag  
 Bernice Gilbreath  
 Carolyn Gregg  
 La Verne Harper  
 Janette Harrington  
 Clyrene Harrison  
 Mary Hemphill  
 Pauline R. Hoeltzel  
 Edra Hood  
 Ruth Isabel Howell  
 Margaret Lampton

Cornelia Lee  
 Lura Knox Massengale  
 Lillie Mae McBride  
 Edith L. McCullough  
 Gladys McCullough  
 Dorothy McDonald  
 Sarah McGill  
 Melba Mickel  
 Alma Miller  
 Margaret Montague  
 Leone Moore  
 Laura B. Porterfield  
 Neva Mae Porterfield  
 Fay Swogger Rankin  
 Kathleen Rhodes  
 Nannie May Roney  
 Kathleen C. Schaer  
 Isabella K. Smith  
 Ernest E. Stevenson  
 Olive Stewart  
 Willy Laura Stuckey  
 Charlotte A. Watts  
 Beulah Mabel Wilson

## TEACHERS' CERTIFICATE IN HOME ECONOMICS

Frances Bailey  
 Ardelle Grubbs  
 Evelyn Kone  
 Mildred Lockhart

Irene Henrietta Nelson  
 Leona E. Smiley  
 Kate H. Williams

## DIPLOMA IN MUSIC

Eugene Guthrie Hassell

Sarah Hon

## CERTIFICATE IN MECHANICAL ENGINEERING

Maurice M. Bradley

Orlo D. Parsley

# UNIVERSITY SCHOLARS

1918-1919

<i>Name</i>	<i>High School</i>
Mathilde Goodwin	El Dorado
Herman Calhoun	Argenta
Stella Moore	Morrilton
Dean Walker	Rogers
Oliver Davis	Greenwood
Joe Carmichael	Malvern
Lela Barton	Fayetteville
Coley McQuiston	Monticello
Blythe Johnson	Jonesboro
Isabelle Deane	Portland
William J. Evans	Atkins
Zipkie Park	Waldron
Marion Argo	Cotton Plant
Clara Kuhnert	Springdale
Jack Smallwood	Russellville
Christine Joiner	Magnolia
Liberta Roberts	Pocahontas
James Rutherford	Hot Springs

# LIST OF STUDENTS

1918-1919

## EXPLANATION OF ABBREVIATIONS

A...	College of Arts and Sciences
E...	College of Engineering
Ag...	College of Agriculture
Ed...	College of Education
F...	Freshman
So...	Sophomore
Jr...	Junior
Sr...	Senior
Sp...	Special
Gr...	Graduate
T...	Trade Course
Mu...	Music
Art...	Art

Name	Course	Home Address
-Adams, Quincy Dalton	A-So	De Valls Bluff
Albright, Opal	A-So	Little Rock
**Albright, Maurice Caryl	A-F	Fayetteville
**Albright, Spencer De Lancy, Jr.	A-F	Fayetteville
**Alcorn, Hal Stuart	A-J	Little Rock
**Alcorn, Robert Elmore	A-I	Little Rock
**Alewine, Reece LaFayette	A-F	Atkins
**Alexander, Albert S.	A-F	Pine Bluff
**Alford, Thomas Elbert	E-So	Kirby
**Allen, Ethan Ellsworth	A-F	Paragould
-Alley, Effie	A-So	Little Rock
**Allred, Thomas Ralph	E-F	Berryville
Amacker, Amos Kent	A-I	Lake Providence, La.
**Amacker, Robert Nicholson	A-I	Lake Providence, La.
-Anderson, Charlotte Suzanne	A-Mu	Clarksville
**Anderson, Lance Dewey	E-Sr	Fayetteville
**Applegate, Harold Knight	E-I	Recess
-Argo, Marion Lee	A-F	Cotton Plant
**Arnoff, David Baer	A-So	McCrory
Askew, Benjamin Reynolds	E-So	Fayetteville
**Atkinson, Lewis Ralph	E-F	Fort Smith
Atkinson, Searcy Hunter	A-F	Texarkana
**Austin, James Henry, Jr.	E-I	Monticello, Ark.
**Ayres, Charles Christopher	E-So	Fort Smith
-Ayres, Linne Lee	Ag-Sr	Fayetteville
**Baas, Milton John	A-F	Little Rock
-Backstrom, Jessie Earle Anderson	A-J	Fayetteville
-Bailey, Frances	Ag-Sr	Newport
**Baker, Henry Charles	A-So	Malvern
Barks, Loret Ingram	A-Sp	Little Rock
**Barnes, Dewey Loyd	A-So	Fayetteville
-Barr, Frederick Elgin	A-F	Hope
-Barrett, Joe C.	A-J	Jonesboro
-Barrett, Lois	Ag-J	Jonesboro



Name	Course	Home Address
**Bartell, Edward Denny	A-J	Siloam Springs
**Barton, Earl Houston	E-F	Fayetteville
-Barton, Lela Viola	A-F	Fayetteville
**Barton, Loy Edgar	E-J	Fayetteville
Barton, Mary Louise	A-F	Marion
-Baskin, Clara Lee	A-So	Wheeler
**Basore, George Marion	E-F	Berryville
-Bassett, Lucy Theresa	Ed-F	Fayetteville
Bates, Margaret Amelia	Ed-F	Fayetteville
-Bayne, William Jasper	Ag-Sp	Brinkley
**Bean, Carmen Pierce	E-F	Fort Smith
**Beasley, George Herschel	A-So	Texarkana
Beasley, Mary Jewell	A-Sp	Stamps
**Beasley, Noble Penfield	A-F	Bentonville
**Beaty, Travis	Ag-F	Lincoln
-Beauchamp, Stonewall Jackson, Jr.	A-F	Little Rock
**Belknap, Ray Lafaure	E-Sr	Sulphur Springs
-Belzner, Mary Barbara	A-F	Camden
Bennett, Lucy Elisabeth	Ag-J	Paris, Texas
**Benoit, Richard Leroy	E-F	Shreveport, La.
**Benson, Frank Mathis	A-F	Fort Smith
**Benton, Henry Vaughan	A-F	Lonoke
-Bird, Harley Omer	A-F	Waldron
-Black, Dorothy Miller	A-F	Little Rock
**Black, John Clinton	E-So	Bentonville
Blackard, Ora	Ed-So	Muldrow, Okla.
**Blackman, Alfred Kelley	A-F	Waldo
Blair, Cecil Clyde	A-Gr	Conway
**Blair, Robert Earle	A-So	Van Buren
-Blakely, Mae Isabel	Ag-F	Hardy
Bland, William Everett	Ed-Sp	La Rue
**Blanks, Aubrey G.	A-J	Hamburg
**Blessing, John Carl	A-F	Brinkley
-Blevins, Eloise Elenora	Ed-So	Dardanelle
**Blevins, Eulas Reeder	A-F	Van Buren
**Block, Joseph Oscar	A-F	Wynne
-Blockett, George Frank	E-F	Jacksonville
**Boen, James Quitman	A-F	Clarksville
-Bonds, Allie Bernice	A-F	Russellville
**Boerner, Richard Counts	A-F	Clarendon
Boeker, Joseph Benjamin	A-F	Texarkana
**Boon, Otto Rex	E-F	Wabash
Boozier, Charles C.	E-T	Fayetteville
**Bossemeyer, James Lee	Ag-F	Fayetteville
**Bouton, Arthur Franklin	E-F	Springdale
Bowden, Norvel Glenn	E-F	Atkins
**Bowen, John Hamel, Jr.	A-F	Perryville
**Bowers, Edward Harris	E-F	Little Rock
**Bowers, Frank Doyle	E-F	Crossett
-Boyd, Bernice Isabel	Ed-So	Pine Bluff
**Boyd, Dooyne	A-F	Fayetteville
**Bradley, Brooks	A-F	Lonoke
-Bradley, James Elbert	A-Sr	Little Rock
-Brashears, Bonnie Chloe	Ed-Sp	Jonesboro
-Braswell, Margaret	A-Sr	Combs
-Brazil, Ernest	E-So	Fort Smith
**Breed, George Cate	A-F	Bauxite
-Brewster, Lillian Alice	A-F	Fort Smith
Brickley, Cula Ruth	Ed-So	Fayetteville
**Bricker, Herschell	E-F	Houston
**Bridwell, Harry Clويد	A-F	Little Rock
		Lowell

Name	Course	Home Address
**Britt, James Eric	E-F	Bentonville
Brogdon, Lafton Karnes	E-F	Springdale
<del>1</del> Brown, Allen Gray	E-F	Moro
**Brown, Clifton Hiram	A-F	Fountain Hill
Brown, Freda Marie	A-F	Dewey, Okla.
**Bryant, James Russell	E-Sr	Texarkana
**Buchanan, Bernie Hugh	E-F	Prescott
**Buechley, Edward Dewey	E-F	Carlisle
**Burch, William Denman	A-F	Texarkana
**Burke, Edgar Lewis	E-F	Wynne
<del>1</del> Burke, Zealia Belle	Ed-I	Lexington
**Burkett, Charles Omer	E-Sr	Newport
Burns, Caroleen	E-Sr	Indianola, Iowa
Burns, Jean Bessie	A-F	Indianola, Iowa
**Burns, Perry Edison	E-F	Texarkana
**Burns, Robert F	A-F	Arkadelphia
<del>1</del> Burroughs, Asa Brice	A-F	Little Rock
**Burson, Robert Eugene	A-So	Van Buren
**Busbee, John Eldridge	A-F	Ozan
**Byrd, Claud Justin	E-F	Augusta
**Cabe, Garland James	A-F	Westville, Okla.
**Cagle, Thomas Lemuel, Jr.	E-F	Boydell
<del>1</del> Cain, Agnes	E-F	Dardanelle
**Caldwell, John Robert	E-F	Little Rock
<del>1</del> Calhoun, Zachary Herman	Ag-I	North Little Rock
**Callans, Everett Dewight	E-F	Dardanelle
<del>1</del> Campbell, William Errington	E-F	Fayetteville
**Canfield, Eugene Hunter	A-F	Canfield
<del>1</del> Cannon, Mary Frances	A-F	Okmulgee, Okla.
<del>1</del> Cantrell, William Martin	E-Sr	Bellefonte
<del>1</del> Cardwell, William Mary	E-Sr	Johnson
Cardwell, Frankie	Ed-Sp	Johnson
Cardwell, Pearl	Ed-Sp	Johnson
<del>1</del> Carl, Beulah	Ag-So	Gentry
<del>1</del> Carroll, Maime Lou	A-J	Charleston
**Carmichael, Joe Phillips	E-F	Malvern
<del>1</del> Carruth, Mary Elizabeth	A-F	Ursula
Carson, William Samuel, Jr.	A-So	Fayetteville
Carter, Christine Amelia	Ed-F	Fayetteville
<del>1</del> Carter, Georgia Gertrude	A-F	Helen
Carter, Versa	Ed-F	Fayetteville
<del>1</del> Carter, Willard Scott	E-F	Fayetteville
Castlebury, Elizabeth	A-F	Jonesboro
Cate, Pearl	Ed-Sp	Fayetteville
Cavett, Melita	Ag-So	Shreveport, La.
<del>1</del> Chandler, Florence Clyde	A-F	Fayetteville
**Chaney, Brown Claude	A-F	Imboden
**Chaney, Kenneth Carter	E-F	Brinkley
<del>1</del> Cherry, Robert Morris	E-Sr	Paris
Chick, Irene Mary	Ed-Sp	Summers
<del>1</del> Chotard, Elizabeth Barnard	A-J	Lake Village
<del>1</del> Christian, Lee Evans	A-F	Portland
<del>1</del> Clardy, Chester	Ag-F	Malvern
**Clark, Carey Eugene	A-So	Strong
<del>1</del> Clark, Edna	Ed-So	Waldo
**Clark, Edward Reep	E-F	Pine Bluff
Clark, James Frank	Ag-F	Conway
<del>1</del> Clark, Howard Rupert	E-F	Springdale
**Clark, Ray Jackson	A-J	Goshen
**Clark, Richard Harry	A-J	Jasper
**Clarkson, George Gregory	E-F	Siloam Springs
**Clarkson, Pitt Deaderick	A-F	Marianna

Name	Course	Home Address
**Clayton, John Middleton	E-F	Little Rock
+**Cobb, Ted B.	E-F	Wynne
-Coffey, Opal	A-F	Fayetteville
**Cohen, Louis Cecil	E-F	Little Rock
**Cohn, Howard Ralph	A-F	Little Rock
-Coker, Edith	A-J	Fayetteville
-Colbert, James Canfield	E-So	Fayetteville
-Colbert, Katherine Chinn	A-F	Fayetteville
>Cole, Nellie	A-Sr	Charleston
-Coleman, Charles R.	A-J	Little Rock
-Coleman, Hughlett Lyell	A-F	Pine Bluff
-Coleman, Mildred Marguerite	A-F	Dermott
Colley, Maude L.	Ed Sp	Hazel Valley
**Colvert, Clyde Cornelius	A-F	Eagle Mills
-Colvert, Osie Harvey	A-F	Eagle Mills
**Combs, Alvo Marion	A-F	Fort Smith
-Compton, John Nye	A-F	Little Rock
**Conley, George Dewey	E-Sr	Paris
Conner, Earl Harold	A-J	Augusta
**Cook, James Elton	A-F	Ola
Cook, Norma	Ed I	Texarkana
**Cook, Thomas Daniel	E-F	Buckner
Coones, Hal Aubrey	E-F	Washington
-Cooper, Oliver R. A.	A-J	Bigelow
-Cotton, Arthur Butler	A-F	Dardanelle
-Cowan, Bohart Powell	E-J	Rogers
-Cowden, Pierpont Morgan	E-F	Horatio
**Cowley, Granville Benton	E-F	Booneville
Cox, Edwin Clem	A-F	Reyno
-Cox, Jesse Emmet	A-J	Malvern
Cox, Nellie	Ed Sp	Springdale
-Cox, Pearl Ray	A-J	Farmington
->Cress, Roscoe Elwin	A-J	Prescott
**Crim, Dewey Murray	E-F	Little Rock
-Crockett, Elizabeth	A-J	Fayetteville
**Cromwell, William Rex	A-F	Fort Worth, Tex.
-Croom, Mally Lane	Ed-Sp	Fort Smith
-Cross, Mary Elizabeth	A-F	Pine Bluff
**Cross, James Hellums	E-So	Pine Bluff
Crowley, Mrs. Mary Agnes Roberts	A-F	Fayetteville
Crozier, Cornelia Newell	E-So	Fayetteville
-Crozier, Rachel Flagg	E-F	Fayetteville
Crump, Hellen Lucille	E-So	Fayetteville
Crump, Jessie Franklin	E-Sp	Pine Bluff
-Cummings, Robert Paul	E-F	Springdale
Curson, Reid	Ed Sp	Little Rock
**Curtis, Harry Burns	E-I	Bentonville
-Dale, Jim Kenney	A-Sr	Fort Smith
**Daniels, Walter Elmer	E-I	Little Rock
-Dante, Jack Stiel	A-So	Dumas
**Darnall, Russell Latimer	A-F	Hope
Davidson, Katherine Eddins	A-So	Helena
Davidson, Loris Delma	Ed Sp	Pea Ridge
**Davis, Elisha Henry	A-F	Hartford
**Davis, Floyd Williamson	A-Sp	Fayetteville
**Davis, Hal Strange	A-F	Texarkana
**Davis, Harold Greenleaf	A-F	Mena
**Davis, Harold Pennington	A-F	Des Moines, Iowa
**Davis, James Henderson	E-F	Auvergne
-Davis, Mary A.	A-Sp	Fayetteville

†Deceased Oct. 17, 1918

†Deceased October 21, 1918.

Name	Course	Home Address
**Davis, Oliver Emmett	A-F	Greenwood
**Davis, Richard Seabearn	A-F	Clarksville
**Davisson, Donald Bowdoin	A-F	Gurdon
-Dean, Isabelle Munger	A-F	Portland
**Decker, Garland Pierre	E-F	Fayetteville
-Deen, Eula Elma	Ed-F	Fayetteville
**Dever, Clyde Ellis	A-Sp	Fayetteville
**Dick, Charles Edward	A-F	Little Rock
**Dickey, Jack Foster	A-F	Monticello
**Dickinson, Robert Rudolph	A-F	Mineral Springs
**Dickson, Hugh Clint	E-F	Muskogee, Okla.
**Dildy, Clifton Robert	A-F	Nashville
**Dill, Sam Loid	E-F	Harrisburg
**Dillard, Earl Bradford	A-F	Prescott
**Dillard, James Felix	A-F	Monticello
**Dodds, William Homer	A-F	Pine Bluff
Dodson, Fred Ryan	A-F	
**Dodson, John Talmage	A-F	Magnolia
Drew, Florence	Ed-So	Texarkana
-Drown, Jesse Frank	E-Sp	Cross Roads
**Dudley, William Burks	E-I	Bentonville
Dunagan, Lizzie	Ed-Sp	Waldron
Duncan, Sarah Isabelle	Ed-So	Waldron
**Dungan, Deaderick Chandler	E-F	Little Rock
**Dunlap, Cecil Everett	E-F	Wilmar
Dunlap, John Jefferson	A-Sp	Clarksville
-Dunn, Henry S.	A-Sr	Van Buren
-Durham, Alma Robbie	A-F	Conway
Dyche, George Axtell	A-Sp	Lawrence, Kansas
†Dyer, William Keith	A-F	Fort Smith
**Eagle, Thomas Fletcher	A-F	Lonoke
**Earle, John Baylis	E-F	Fayetteville
**East, Jack	A-F	Texarkana
**Eastin, Augustus Scrogin	A-F	Little Rock
**Eastin, Jack Franklin	E-F	Little Rock
**Elder, Bryon Garnett	A-F	Texarkana
**Eldridge, George Wallace	A-F	Wynne
**Ellicott, Homer Vincent	A-F	Checotah, Okla.
**Elliott, Roy Herbert	A-F	Fayetteville
-Ellis, Catherine	Ed-So	Fayetteville
-Ellison, Henry Fred	Ag-Sr	Atkins
**Ellsworth, Orrin Wesley	E-F	Prescott
-English, Julia Rebecca	A-F	Little Rock
Eoff, Mrs. D. R.	E-Sp	Fayetteville
**Eskew, Henry Crawford	E-F	Augusta
**Estes, Aubrey Clyde	E-So	Corning
**Evans, John Sid	E-I	Plainview
-Evans, Hugh	A-So	Dalark
Evans, William James	E-F	Atkins
-Evatt, Estella	Ag-Sr	Waldron
-Ewart, Elsie Ardelia	Ed-F	West Helena
-Ewart, James Burns	E-So	Booneville
**Fairman, Francis Stanley	A-F	Bentonville
**Faison, Bert	E-F	Texarkana
**Falconer, Falcener Armistead	A-I	Charleston
**Fane, Burnhardt William	A-F	Texarkana
**Farmer, Joseph Kenneth	A-So	Newport
**Farley, Cecil Cowan	A-Sp	Springdale
Farrior, Bonnie Lee	Ed-So	Dardanelle
**Faucett, Joe Munsey	A-So	Pine Bluff
-Feemster, Hugh Herbert	A-F	Gentry

†Deceased October 15, 1918.

Name	Course	Home Address
✓Felsenthal, Sonnel J.	E-So	El Dorado
••Fenno, Vernon Edgar	E-F	Siloam Springs
••Ferguson, George Martin	E-F	Little Rock
Ferguson, James Vance	A-So	Marshall
••Fitch, Earl Young	E-F	Carlisle
••Fitzjarrell, Earl Elzo	E-F	Hartford
••Flake, Oden ( )	A-F	Clarksville
••Flanagan, James Clarence	A-F	Fayetteville
Fontaine, Rosalie M	Ed-So	Oran
Ford, Jennie Rochester	Ag-Sp	Cherryville, La.
✓Ford, Merle Esther	A-F	Searcy
••Fore, John Vernon	A-So	Prescott
Forrest, Gladys	A-F	Siloam Springs
✓Forrester, Charlie Vera	A-So	Waldron
••Foshee, Clarence Brice	E-F	Murfreesboro
✓Frasier, Waldo	A-F	Ozark
••Freeman, Curry Bryan	A-So	Ashdown
Fuess, Elizabeth	A-Mu	Little Rock
••Fuess, Louis Wangelin	A-F	Little Rock
••Fulbright, Jack	A-So	Fayetteville
Fulbright, Frances Lucile	A-Sp	Fayetteville
Fuller, Ruth	A-Sp	Fayetteville
✓Fuqua, Mary	A-F	Texarkana
✓Furr, Ionia Beatrice	A-J	Arkansas City
✓Futrell, Helen	A-F	Fayetteville
••Gaffney, William Claude	E-So	Eudora
✓Gage, James Kelley	A-F	Horatio
✓Gaines, Benjamin Pollard	F-So	Lake Village
Gaines, Katherine Florence	A-F	Texarkana
Galbraith, Oliver Jr.	E-F	Pine Bluff
••Galbreath, Charles Steele	A-F	Bentonville
••Gallagher, Harry August	A-F	Mena
••Gandy, Hiram Onderdonk	A-F	London
Garlington, Arthur Roe	Ag-So	Booneville
✓Garner, Sam	A-F	Marvell
••Gartenberg, Leo	A-F	Hot Springs
••Gatewood, Edwin McClintock	A-So	Malvern
••Gatewood, Elva	F-F	Wilmar
✓Gay, Clyde Ferdinand	A-F	Little Rock
••Gay, Richard Henry	E-F	Portland
••Gayor, Murl	A-F	Rogers
••Gibbs, Oscar D.	F-F	Malvern
✓Gillbreath, C. Richard	A-F	Fayetteville
••Giles, Frank Dinsmore	A-F	Wheeler
••Gill, Purifoy	A-F	Arkadelphia
Gillespie, Frances Louise	Ed-So	Oseola
✓Gillespie, Mildred	A-F	Fayetteville
✓Gilliam, Eleanor	A-Sr	Lockesburg
✓Gilliam, Lela Florence	Ed-F	Spiro, Okla.
Glasco, Maud Eleanor	A-Sp	Bigelow
✓Glass, Miriam Genevieve	Ag-F	Springdale
••Glover, Lester Newton	A-F	Bentonville
✓Goff, Omajean Allen	Ag-F	DeQueen
••Gold, Malcolm Harrington	A-F	Fayetteville
••Gold, Paul J.	A-J	Fayetteville
✓Gollaher, Pearl Gladys	Ed-Sr	Fayetteville
••Goode, George Edward	F-F	England
Goodrich, Charles Kelly	A-F	Jonesboro
••Goodrich, Russell Arthur	E-F	Little Rock
••Goodwin, Jefferson Allen	E-F	Charleston
✓Goodwin, Mathilde	A-F	El Dorado
†Deceased.		

Name	Course	Home Address
**Grabiell, John Kent	E-F	Fayetteville
-Grabiell, Ruth Rubetta	A-Sr	Fayetteville
**Grady, Vaughan	A-F	Lockesburg
**Graham, Hugh Densmore	E-F	Springdale
Graham, Jaunita Belle	Ed-F	McGehee
**Graham, Wallace Edwin	E-F	Clarendon
-Graves, Homer Dodson	E-F	Springdale
**Graves, Hubert	E-F	DeQueen
-Gray, Mary Jennie	Ed-F	Fayetteville
**Greaves, Robert Roosevelt	A-F	Fayetteville
**Greenburg, Heiney H.	A-F	
Greenwood, Anne Breckinridge	A-Sp	Little Rock
-Greer, Irving Mitchell	A-Sr	Wing
-Gregg, Carolyn	A-J	Fayetteville
-Gregg, Margaret Teresa	Ag-So	Fayetteville
Gregson, Dorothy	A-Sp	Fayetteville
**Gunnells, Drew Jefferson	A-So	McNeil
Guthrie, Gertrude	Ag-F	Prescott
**Hailey, Carroll Davis	A-So	Berryville
Hall, Alma Vivian	A-So	Charleston
**Hall, Francis VaVerne	E-F	Hartford
**Hall, Harold Herbert	A-So	Bentonville
**Hall, Norman Russell	E-F	Little Rock
-Hall, Robert Norton	E-F	Eagle Mills
**Ham, Franklin Earle	E-F	Fayetteville
**Hamburg, Alph	A-F	Lonoke
Hamby, Elizabeth Sarah	Ag-F	Prescott
Hamilton, Creedy Elizabeth	Ed-So	Waldron
-Hamilton, William Greene	A-So	Russellville
Hamiter, Robertelle	A-Sp	Little Rock
**Hancock, James Alvis	A-F	Blytheville
Hanks, Bessie M.	Ed-Sp	Johnson
**Hannah, Paul Dixon	E-J	Fayetteville
-Hardeman, Gertrude Woodson	A-F	Little Rock
**Harder, Thomas Lafayette	E-So	Newport
**Hardin, Joseph Carroll	A-So	Grady
**Harding, Horace Hunn	E-J	Fayetteville
**Hargis, James Riley	A-F	Berryville
**Hargraves, Davis Thompson, Jr.	E-F	Helena
Hargrove, Richard M.	E-Sp	Paroloma
**Harkey, Olga John, Jr.	Ag-F	Ola
**Harmon, George Hampton	A-F	Fort Worth, Texas
Harp, Pearl	Ed-Sp	West Fork
**Harriage, Chris Hackett	A-F	Ha-kell
-Harrington, Florence Alameda	Ed-F	Fayetteville
-Harrington, Leroy J	E-F	Fayetteville
Harrington, Rena Idelle	A-So	Stephens
**Harris, Alva C.	A-Sp	Fayetteville
**Harris, Elmer Ralph	E-F	Truman
Harris, Esther	Ed-Sp	Durham
Harris, Jennie	Ed-F	Fayetteville
-Harris, Luetta Margaret	A-So	Fayetteville
-Harris, Shade Murray	E-So	Fayetteville
-Harrison, Clyrene	A-J	Mena
Harrod, Laynie Wesdom	A-I	Vilonia
Hart, Gertrude Elizabeth	A-I	Van Buren
**Hart, Neill Wesley	E-F	Pine Bluff
**Hart, Robert Paschal	E-F	Arkadelphia
**Haskell, Eugene Guthrie	A-I	Clinton
**Hatley, John Poe	A-F	Little Rock
**Hatley, Philip Waller	A-F	Little Rock
-Hay, Walker Clifton	A-Sr	Fayetteville

Name	Course	Home Address
**Haynes, Woodfen Earle	A-F	Morrilton
**Haynie, Lawrence Edmond	E-F	Prescott
**Hays, Hugh Ralph	E-So	Fayetteville
**Hays, Lawrence Brooks	A-Sr	Russellville
Hays, Orren Lee	A-F	Russellville
Head, Mary Norma	A-F	Texarkana
**Heaton, Thomas Leon	E-F	Paragould
Herbert, Gaston Arthur, Jr.	A-Sp	Hot Springs
**Heckman, John Howard	E-F	Monticello
Hedgepeth, Anna Lunetta	Ag-F	Little Rock
**Hedrick, Maudrel Fred	A-F	Warren
**Heerwagen, Leo Frederick	Ag-F	Fayetteville
Hegner, John Robert	E-J	Stuttgart
Henderson, Evrette Lee	A-Sr	Rogers
**Henderson, Fitzhugh Lee	E-F	Fitzhugh
Henderson, Sarah Ruth	Ed-So	Hot Springs
**Hendrey, Waldersee Brazier	Ag-I	Bigelow
Hendricks, Agnes Belle	A-Sr	Fayetteville
Hendricks, Sterling Brown	E-F	Fayetteville
**Henry, Robert Floyd	A-So	Russellville
**Hensley, David Wesley	A-F	Lonoke
**Henson, Louis Emerson	A-So	Springdale
**Herron, Walter Lawson	E-F	Mer Rouge, La.
Hestwood, Gerald A.	E-F	Siloam Springs
**Hestwood, John Gilbert	E-So	Siloam Springs
**Hicks, Andrew Garner	A-F	Blytheville
Higgs, Lida	A-So	Idabel, Okla.
Hill, Vance Alvis	E-F	Fort Smith
Hillhouse, Lawrence	A-F	Newport
Hilton, Amelia Doriot	A-Sr	Pueblo, Colo.
**Hine, James William	E-F	Forrest City
Hinds, Hazel Stites	Ag-F	Fayetteville
Hinds, Hubert Bynum	Ag-Sr	Fayetteville
**Hinsco, Dock Newton	E-F	Springdale
**Hitt, Carl Marison	A-F	Prescott
**Hix, Carey Leroy	E-F	Malvern
**Hoag, Basil Samuel	A-F	Fort Smith
Hodges, Bess Pearl	Ag-Sr	Westville, Okla.
**Hodges, Howell	A-F	Rogers
Holcomb, Crawford	Ag-I	Fayetteville
**Holderby, Richard Henry	Ag-I	Newark
**Hollabaugh, Shem Ernest	E-So	Marshall
Holland, Loretta Amelia	Ed-S	Pocahontas
Holmes, Corinne X	Ed-F	Camden
**Hon, Daniel Gaines	A-I	Fort Smith
**Hon, George Dewey	A-I	Hon
Hood, Edna Lucile	A-I	Russellville
**Hopp, Clarence Harold	A-Sr	Fort Smith
Horn, Robert Jewell	E-I	Bauxite
**Hotopp, Walter Joseph	E-I	Bald Knob
Housley, Estella	A-Sr	Hot Springs
**Housley, Floyd Amanuel	E-I	Hot Springs
**Howard, John McKinney	E-I	Trenton, Tenn.
Howell, Jim Posy	Ag-Sr	Hope
**Hudgens, John Calhoun	A-F	Johns
Hudgins, Helen Masberne	A-Sr	Fayetteville
Huenfeld, Erna Emilie	Ag-I	Gregory
Huffman, Reba	E-S	Springdale
Hughbanks, James Gard	E-I	Cherryville, Kan.
Hughes, Jewell	A-Sp	Fayetteville
**Hunt, Richard Thurmond, Jr.	A-F	Miami, Okla.
**Husky, Hiram Watson	A-So	Prescott



Name	Course	Home Address
••Husky, Lyman Theodore	A-F	Prescott
•Hust, Hurlley Gregg	A-Sp	El Paso, Texas
••Illing, Leo Manier	A-J	Little Rock
••Imon, Neil Cunliffe	E-J	Pine Bluff
••Iby, Annie Clara	Ed-J	Wesson
•Irby, Nolen Meaders	Ed-Gr	Blue Mountain
•Irby, Pet	Ag-So	Wesson
•Ivy, Thomas Ross	Ed-Sp	Fayetteville
••Jackson, Marshall Parks	E-F	Arkadelphia
••Jacobs, Royl Wood	E-So	Fayetteville
••Jamerson, Charles Dewey	A-F	Clarendon
•James, Feb Ara	A-So	Walnut Ridge
•James, Joe Felkins	E-F	Clarksville
••Jamison, Joseph Dibrell	E-So	Gillham
••Jeffus, Daniel Myron	A-F	Camden
••Jelks, Jefferson Rukin	Ag-F	McCrory
••Jenkins, Normon J.	A-Sp	Stephens
••Jennings, William Everette	A-F	Little Rock
•Jetton, Juliet Erin	A-So	Charleston
•Joerden, Russell Howard	E-So	Pine Bluff
••Johnson, Duncan Blythe	A-F	Jonesboro
•Johnson, Madge	Ag-Sr	Highfill
••Johnson, Maple Milner	A-F	Cotton Plant
•Johnson, Mary Elinor	Ag-F	Highfill
••Johnson, Thetus Sims	E-F	Berryville
••Johnson, William Albert	A-F	Lincoln
•Joiner, Anna Christine	A-F	Magnolia
•Jones, Beulah May	Ed-F	Fayetteville
••Jones, Donald Francis	E-F	Fayetteville
••Jones, Joseph Samuel	A-F	Atkins
•Jones, Roscoe Winton	A-F	Fort Smith
••Jones, Wortham De Witt	E-F	Malvern
••Jones, William Bernard	A-F	Prescott
•Jordan, Walter Raymond	A-F	Wynne
•Kane, James John	E-F	Fort Smith
••Keeler, Earl	E-F	Bentonville
•Kerr, Catherine	A-Sr	Fayetteville
••Kidd, Harland Robert	A-Sp	Little Rock
••Kight, Victor Hugo	A-F	Malvern
••Kilbourn, Garland Rex	E-F	Bentonville
••King, Cyrus Miles	E-F	Stuttgart
••King, Harvey Wilson	A-F	Springdale
•Kinsworthy, Annie	E-So	Fayetteville
•Kinsworthy, Burton Hargrove	A-F	Wilton
••Kirby, Walton Karl	A-F	Texarkana
••Kirksey, Thomas M.	A-F	Dardanelle
••Kirsch, Bertrand Theodore	A-F	Mena
•Kitchens, Margarette Thelma	Ed-F	Magnolia
•Kizer, Roland Cyrus	E-So	Monticello
•Knerr, Dorothy Dee	A-F	Fayetteville
••Knight, William Jackson	A-F	Helena
••Knoch, Lester Herman	E-So	Fayetteville
••Knott, John Homer	E-Sr	Fayetteville
••Knox, Raymond McRae	E-F	Little Rock
••Kolb, Ervin Davis	A-F	Clarksville
•Krickel, Mary	A-Sp	Helena
•Kruger, Florence Dorothy	A-So	Little Rock
••Kubale, Edwin	E-F	Fort Smith
•Kuhnert, Clara May	A-F	Springdale
•Kuydendall, Ruth	A-So	Fort Smith
•Ladd, Sallie Allene	Ed-Sp	Fayetteville
•Lambright, Benjamin George	Ag-F	Dierks

Name	Course	Home Address
**Lamont, Robert Jarrell	E-F	Malvern
Lane, Pearl Lillian	Ed-So	Van Buren
**Lankford, William Burton	A-F	Van Buren
**Lary, Berger	A-F	Jonesboro
-Laser, Minnie	A-F	Clarksville
Laser, Rille	A-F	Clarksville
Lawrence, Kathleen Mary	A-F	Osceola
-Lawson, Edwin Hugh	A-J	Nashville
Lee, Georgia Grace	Fd-So	Helena
**Lee, Paul Bryan	E-F	Bentonville
-Lee, William McGuire	Ag-J	Center Point
-Leeper, Robert Fulton	E-So	Benton
-Leflar, Robert Allan	A-F	Siloam Springs
-Leighton, Syble Ingovar	Ag-F	West Helena
**Leiper, Hugh Nail	A-So	Malvern
-Lemay, Jack Wesley	Ag-F	Lewisville
**Lemmon, Robert Wayer	A-I	Altheimer
**Leonard, Elston Stewart	E-F	Fayetteville
**Lester, McCants	E-F	Lewisville
**Lewis, Carter	A-F	Abbott
-Lewis, Geneva	A-So	Fayetteville
**Lewis, William Bryan	E-F	Hope
Liebolt, Weldon	E-F	Fayetteville
-Lincoln, Benjamin Aplin	Ag-F	Van Buren
**Linthicum, John Charles	A-I	Fort Smith
Lipe, John Harry	E-So	Carlisle
**Little, George David	A-I	Texarkana
**Little, William Singleton	Ag-So	Conway
-Littlejohn, Jeanette	A-So	Perryville
-Livesay, Douglas Greenfield	Ag-So	Foreman
-Locke, David Archibald	E-I	Fayetteville
-Lockhart, Maude	Ed-F	Camden
**Logan, Robert Renic	E-So	Fayetteville
-Lovell, Kenneth Wesley	A-I	Bradford
**Lovell, Ulysses Andrew	A-So	Bradford
Lovely, Zilla	Ed-So	Fort Smith
Lowe, Maggie Belle	Ed-So	Elm Springs
**Lucas, Busbee	E-I	Sallisaw, Okla.
-Lucas, Henry Alexander	Ag-So	Fayetteville
**Luker, Otis Wingo	E-I	Cotton Plant
**Lutterloh, Charles H.	A-So	Helena
-Lyday, Edgar Purifoy	A-F	Camden
**Lynn, Hugh McQuiston	E-F	Texarkana
**Lyons, Samuel Raymond	A-So	Little Rock
**McAlexander, Frank Giles	A-F	Marianna
-McCaleb, Jesse Burt	E-J	Batesville
**McCarroll, Fred	A-F	Walnut Ridge
**McCartney, Elmer Paul	A-F	Fayetteville
McClure, Myrth	A-F	Texarkana
-McConnell, Jamie Pauline	A-So	Hot Springs
-McCulloch, Hugh	E-F	Elaine
**McCulloch, Robert Sperry	E-F	Siloam Springs
-McCullough, Gladys Oriena	A-So	Fayetteville
McCullough, Maibelle	A-So	Fayetteville
**McCune, Charles Elliott	A-F	Fort Smith
**McDaniel, Calvin Hartin	E-F	Magnolia
**McDaniel, Oscar Wilson	A-F	Rogers
McDonald, Charles Plato	E-I	Fayetteville
**McDonald, Frank Edward	A-So	Fayetteville
-McDonald, Margaret Carolyn	A-F	Fort Smith
-McDonnell, Susie Belle	A-So	Little Rock
**McDowell, Harry Bourne	E-F	Little Rock

Name	Course	Home Address
McElroy, John Willis	A-Sp	Fayetteville
**McFarland, Tillman Russell	E-F	Nashville
McFarlane, William D.	A-Sr	Greenwood
McGarry, Minnie Marcille	A-So	Little Rock
**McGaughy, James Porter	A-Gr	Pine Bluff
McGaughy, Mary Frances	A-F	Pine Bluff
McGill, Josephine	Ed-F	Chidester
**McGinley, Harold Joseph	A-So	Rogers
McIlwain, Helen Lewis	A-So	Little Rock
**McIntosh, Paul M.	A-Sp	Fayetteville
**McKennon, Chester Houston	A-F	Clarksville
**McKennon, George C., Jr.	A-F	Russellville
McKennon, Joe Lee	A-J	Dumas
**McKenny, Jerill Claus	A-F	Van Buren
McLees, Willie M.	Ed-So	Little Rock
McNair, Emily	Ed-F	Little Rock
McNair, Margaret Julia	Ed-So	Little Rock
**McNamara, William L.	A-F	
McNeely, Maggie	A-F	Little Rock
**McNeil, John Edward	A-F	Fort Smith
McQuiston, Coley Bell	Ed-F	Monticello
McRaven, Mullins Duncan	A-Sp	Little Rock
**Mabry, Elba Ward	A-F	Brinkley
**Maddox, Henry Wilson	A-F	Texarkana
Maddox, Lila Mae	A-So	Little Rock
Maggard, Mary Chloe	A-Sp	Harrison
Magruder, Cecil Lue	E-F	Fort Smith
**Malone, Anderson Dacus	A-F	Plummerville
Malone, James Miller	A-F	Plummerville
**Mann, Albert Howell	E-F	Texarkana
Markwell, Kenneth William	E-J	Bigelow
**Marks, Charles Louis	E-F	Springdale
Martin, Josephine Elliott	A-So	Pine Bluff
**Martin, William Samuel	E-F	
Mason, Arthur Dixon	A-F	Fort Smith
**Mason, Fagan Burt	E-So	Flippin
**Masoner, Harold Newton	A-F	Bentonville
Massengale, Lura Knox	Ed-J	Fayetteville
**Massengill, Ivan Virgil	A-F	Rector
**Massey, Joseph Arden	A-F	Batesville
Massie, Lillian Emily	A-F	Fayetteville
Mathews, Justus, Jr.	A-F	Little Rock
Matthews, Verda Park	A-Sp	El Reno, Okla.
Maxwell, Blain	A-So	Osceola
**Maxwell, James Charles	A-F	Van Buren
**Maxwell, Ralph Endicott	E-F	Siloam Springs
May, Hazel Lois	Ed-Sp	Brentwood
**May, Joseph Kelley	E-F	Waldron
**May, Leo Goldsmith	A-F	Lonoke
**Mayes, Curtis Cooley	A-F	Jonesboro
**Mead, Jennings Bryan	A-F	Pine Bluff
Mehlburger, Max Arthur	E-F	Fort Smith
Melton, Robert Preston	E-F	Fort Smith
**Mendel, Ernest Jerome	A-F	Hot Springs
Mendenhall, Mildred Mariel	Ag-F	Rosston
Metcalf, Lettie Roberts	Ed-F	Fayetteville
Metzger, Emma Louise	Ed-So	Morrilton
Middlebrooks, Estelle	Ed-So	Hope
Milburn, Algie Elizabeth	A-F	Fayetteville
**Miles, Merriam L.	A-F	Fort Smith
Miller, Alma	A-Sr	Harris
**Miller, Bertrand B.	A-So	Dardanelle

Name	COURSE	Home Address
Miller, Dratie A.	E-T	Holly Grove
Miller, Fanita W.	E-L So	Huntington
**Milliken, James William	E-F	Little Rock
**Minnier, George Samuel	E-L	Paris
Minnis, Hal Fletcher	A-F	Roe
**Mitchell, Sextus Dunkin	E-L So	Chismville
Mitchell, Shelby Hardin	A-F	Morrilton
**Mobley, Charles Lindley	E-F	Hope
**Moffitt, Hugh Price	A-L	Fayetteville
**Moffitt, James William	E-L J	Fayetteville
**Montgomery, Robert Lee	A-F	Lewisville
Moody, Julius Clark	E-Sr	Bald Knob
Moon, Dorothy Grace	A-Sp	DeQueen
**Moore, Merlin	A-L	Pine Bluff
**Moore, Raymond Brown	A-L	Harrison
Moore, Stella Irene	E-L P	Morrilton
Moose, Melbourne	A-Sp	Morrilton
**Moran, Thomas Wheaton	A-F	Ft. Oglethorpe, Ga.
**Morehead, Robert Felder	A-F	Hot Springs
*Morris, Truman Nicholas	A-L	Mammoth Springs
**Morrow, Franklin Hooker	E-Sr	Piggott
**Moseley, Carl Jennings	E-F	Warren
**Moseley, James Sidney	E-T	Little Rock
**Morely, Elton Dixon	E-F	Pine Bluff
Mulkey, Henry McCants	A-L F	Lewisville
Mullens, Lewis Edward	A-F	El Paso
**Mullins, William Eugene	A-Sr	Texarkana
Mulrenin, Bernard Cass	E-J	Fayetteville
Mulrenin, Mary Cecilia	A-F	Fayetteville
**Murphy, Fred Thomas, Jr.	A-F	Brinkley
**Murphy, Foy Campbell	E-So	Greenwood
Murray, Louis C.	A-Sp	Valley Springs
**Myer, Charles Franklin	A-F	McGehee
**Myers, William Robert	E-F	Helena
**Naill, John DuBose	E-F	Biscoe
Nance, Cleonas Herron	A-L F	Greenwood
Neal, Eugene Harry	E-F	Poteau, Okla.
Neathery, Mary Belle	A-F	San Pedro, Calif.
Neelly, Lillian Lucile	E-L So	Fayetteville
Neely, Virginia Bell	A-L Sr	Fayetteville
Neely, Frank Harold	E-F	Paragould
Nepolskii, Bess	A-Sr	Brinkley
Newman, Grace	A-Sr	Little Rock
*Newman, Stanley M.	E-J	Helena
Newton, Susan Hampton	A-F	Camden
**Nicholls, William Edward	A-F	Helena
**Northum, Elijah Homer	A-F	Nashville
**Nunn, Henry Woods	E-F	Pine Bluff
**Oates, Sidney McKinney	A-F	Russellville
**O'Bannon, William Hughes	E-F	Monticello
**Ogden, Frank, Jr.	A-L	Horatio
*O'Kelly, Joseph Fred	A-L	Fayetteville
Oliver, James Montgomery, Jr.	A-L	Corning
Oliver, William Loverage	A-L	Corning
**O'Neal, Clarence Bert	A-L	Texarkana
**Osborne, Howell Collier	A-L	Fort Smith
**Overholser, Roy Wilder	A-F	Texarkana
**Owen, Arris	E-L	Magnolia
Owen, Bernice Faust	A-Sr	Fayetteville
**Owen, William Harold	A-L	Brinkley
**Owens, Walter Thaddeus	A-Sr	Lonoke
*Owsley, Kate	A-L	Greenwood

Name	Course	Home Address
**Pace, Arthur Rolland	A-F	Springdale
✓Paddock, Mary Grace	Ed So	Fayetteville
**Pampel, Byron Harold	A-F	Gentry
Park, Zinkie Mae	A-F	Waldron
**Parker, Chester	E-So	Chismville
✓Parker, Donald Ross	E-I	Fayetteville
✓Parker, Harold Roberts	E-F	Fayetteville
Parker, Mabel Smith	A-Sp	Fayetteville
**Parrot, Hawley Thomas	A-F	Fort Smith
**Parsley, Orlo Derrel	E-F	Fayetteville
**Paton, Hubert Alexander	A-So	Mena
**Patterson, Bennett Burr	A-Gr	Jelks
Patterson, Ruth	Ag-F	Oklahoma City, Okla.
**Patton, Frank Harrison	E-F	Lewisville
**Patton, Clyde	A-F	Newport
✓Paul, Bryan Berry	E-So	Bentonville
**Paulk, James Byron	A-J	Fouke
**Pearce, Fred Alden	A-F	Bentonville
Peden, Orchid Erie	A-Mu	Fayetteville
**Peel, Joe Rea	A-F	Dallas, Texas
**Petty John, Marvin James	Ed-F	Walnut Ridge
**Pfeifer, Arthur Philip	A-F	Little Rock
**Pfiefer, Philip	A-F	Little Rock
✓Phillips, Carlos	E-F	Springdale
**Phillips, Jack Walter	A-F	Ashdown
**Phillips, James Hastings	E-F	Gravette
**Phillips, Mathew Cecil	A-F	Cabot
**Phillips, Sam	A-F	Camden
✓Pickel, Frank W., Jr.	A-F	Fayetteville
**Pierce, Fred Paul	A-F	Warren
**Pierce, Lewis Olin	E-F	Harrison
**Pierron, Philip Herbert	A-F	Stuttgart
**Pitcock, James Douglas	A-F	Tulsa, Okla.
Poe, McDonald	A-I	Waldron
✓Poe, Sam Edgar	E-I	Waldron
**Poe, Vernon Jay	A-I	Fayetteville
**Polk, Joe Travis	A-So	Fayetteville
✓Polk, Ruby Nell	E-I-F	Fayetteville
Pollock, Margaret Alexandria	E-I-So	Buinton
✓Powell, Howard Smith	A-F	Little Rock
✓Powell, William Lea	E-Sp	Little Rock
Porter, Grace	E-I-So	Texarkana
Porter, Mae Jean	E-I-So	Texarkana
✓Powell, Howard S.	A-F	Little Rock
Prather, Marian	A-Sr	Fort Smith
✓Pratt, Evangeline	A-Sr	Fayetteville
**Presley, Elisha Lee	E-F	DeQueen
**Price, Lawrence	A-F	Ashdown
**Proctor, Cloud Colbert	A-F	Blytheville
✓Ptak, Vaclav James	A-J	Fayetteville
✓Pugh, Joe Withers	Ag-F	Portland
Pudry, Jacob Carmen	E-F	Providence, La.
✓Ragsdale, John Gails	A-Sr	El Dorado
✓Ragsdale, Thomas Floyd	E-F	Russellville
✓Ralph, Bonnell	A-Sp	Texarkana
✓Randall, Glenn Orvice	Ag-F	Rogers
**Rankin, Earnest Labon	A-F	Perryville
Ratliff, Marion Gladson	A-Sp	Fayetteville
✓Ray, Thelma Viola	A-F	Texarkana
**Real, Brose	E-F	Siloam Springs
**Rebsaman, Raymond Henry	E-F	Fort Smith
**Rector, John Carlisle	E-F	Mena

Name	Course	Home Address
<del>Reed, Coro Lee</del>	A-F	Little Rock
**Reed, Jarvis Joe	A-F	Springdale
**Reed, Joseph Summers	F-F	Springdale
**Reed, Lloyd Mace	A-So	Russellville
**Reese, Brooks McCrary	A-F	Nashville
**Reeves, Russell Eugene	A-F	Lake Village
**Reiney, Owen Elliotte	E-F	Paragould
**Renfrow, Percy Rea	A-F	Russellville
<del>Richardson, Davis Payne</del>	A-F	Fayetteville
<del>Richardson, Fount</del>	A-F	Fayetteville
Ridgell, Pammie Edith	A-F	Manning, S. C.
Rister, Claude U.	I Sp	Rochester, Texas
**Ritchie, Charles Jackson, Jr.	A-F	Helena
Ritchie, Frances Jane	A-F	Camden
Roberts, Liberta	A-F	Pocahontas
**Robertson, James Leland	A-So	Piggott
**Robertson, Jerome Pillow	A-F	Galveston, Texas
<del>Robinson, Joseph Taylor</del>	A-F	Lonoke
<del>Robinson, Robert Clifton</del>	A-So	Springdale
**Rodgers, Hailey Clyde	F-F	Pine Bluff
<del>Rodgers, John Henry</del>	A-F	Gravette
Rodgers, Lois Virginia	A-F	Fayetteville
**Rogers, Aubrey Frank	E-F	Crossett
**Rogers, Byron Giles	A-F	Checotah, Okla.
**Rogers, Logan Herbert	A-F	Fort Smith
Rogers, Nettie	A-F	Crossett
<del>Rogerson, John Biscoe</del>	E-S	El Dorado
**Rollans, Dean	F-F	Fayetteville
Rose, Dessie	F-I St	Rosedale
**Roseman, George Warren	A-F	Prescott
Rosencrantz, Ruth L	Ed-F	Fayetteville
<del>Ross, Una Mae</del>	A-Sr	Charleston
<del>Rouw, Elsie Inez</del>	F-I I	Van Buren
**Rowe, Argus Eli	A-F	Patter
<del>Rucker, Hugh Walter</del>	E-F	Bauxite
<del>Rule, Martha Turrentine</del>	A-So	Lonoke
<del>Rushing, Garland Stanley</del>	A-F	Chidester
<del>Russell, Andrew Jay, Jr.</del>	A-F	Berryville
**Russell, Perry Dean	A-F	Gravette
<del>Rutledge, James Norman</del>	E-F	Fort Smith
<del>Rutherford, James Edgar</del>	A-F	Malvern
**Rutstein, Leon D.	A-F	Pine Bluff
**Sadler, Charles Rollin	A-F	Booneville
<del>Sallee, Lyttleton, Jr.</del>	A-F	Pine Bluff
Sanders, Mayme	Ed-So	Fayetteville
Sanderson, Jeff Davis, Jr.	A-F	Texarkana
Sanderson, Lois	F-I I	Texarkana
Sanderson, Sibyl	F-I S	Texarkana
<del>Savage, Vivien James</del>	A-S	Carlisle
**Scantland, Elbert Jacob	A-F	Magnolia
<del>Scarborough, William Freeman</del>	Ag-F	DeQueen
<del>Scoggin, Arthur H</del>	A-F	Fayetteville
**Scott, James Rufus	A-F	Forrest City
Screeton, Earl James	A-F	Hazen
**Searcy, Robert Lionel, Jr.	A-Sr	Lewisville
**Seawel, William Lafayette	A-F	Summit
**Sellers, Joel Flynn	E-F	Westville, Okla.
<del>Sellers, Katherine Elizabeth</del>	A-F	Morrilton
<del>Sellers, Mary Dale</del>	A-J	Morrilton
**Sellick, John Mayhew	F-F	Barryville
**Sexton, Joe Baber	A-F	Walnut Ridge
Shackleford, Ada May	A-Sp	Little Rock

Name	Course	Home Address
-Shandy, Doris Lucile	A So	Pine Bluff
Sharp, Earl Payne	F So	Fort Smith
-Sheeks, Edgar Van Buren	A F	Corning
Sheeks, George Alice	F So	Corning
Shepard, Jane Crosby	A F	Dewey, Okla.
-Shepard, Nathaniel Leonard	F F	Little Rock
**Shinn, William Darrell	F F	Harrison
**Shultz, Carl Ware	F F	Pine Bluff
**Shumaker, Clarence Arnold	L So	Little Rock
**Simmons, Roy Nathaniel	F F	Augusta
-Simpson, Augusta Louise	A So	Hamburg
Simpson, Lucile Katherine	F So	Fayetteville
**Sims, Ralph Duley	F F	Hazen
**Sisson, John Scogin	F F	Bastrop, La.
Skaggs, Gaston Thomas	A F	Fayetteville
**Skaggs, Norris Routh	A F	Fayetteville
**Skinner, Plymouth Otta	A F	Hackett
**Slade, Milton Burke	Ag F	El Dorado
Slaughter, Bernice	Fd So	Springdale
Slaughter, Carlos	A F	Ravenna, Texas
-Smallwood, John Marshall	A F	Russellville
**Sloan, Dewey Williard	A Sp	
Smead, Ritchie	Ag So	Camden
Smith, Abbie Neale	F So	Springdale
**Smith, Ardis	F So	Little Rock
**Smith, Byron Thomas	A So	Springdale
-Smith, Carl William	F F	Fayetteville
-Smith, Catherine Mary	A F	Fayetteville
**Smith, Clarence Turner	Ag F	Siloam Springs
**Smith, Hal Perrin	A F	Mt. Ida
-Smith, Isabella Kennibugh	A So	Fayetteville
Smith, James L.	A Sp	Stephens
-Smith, John Frank	A So	Fayetteville
-Smith, John Ira	A F	Fayetteville
-Smith, Lydle Pierson	Ag F	Siloam Springs
Smith, Mary Evangeline	A F	Fayetteville
-Smith, Sam	A F	Stephens
-Smith, Velma	Ag-Sr	Paris
**Snoddy, Raymond A.	A F	Ash Grove, Mo.
Snodgrass, Harold	F F	Little Rock
**Soapes, Arlan Dwight	A F	Bentonville
**Solomon, Victor Newman	A So	Helena
Sone, Allah	A Sp	Fayetteville
**Souter, Hubert Hosea	F F	Little Rock
**Southard, Walter Robbins	A F	Helena
**Spear, William Arthur	A F	Fort Smith
Speer, David Henderson	A Sp	Fort Smith
Speery, Mayme Louise	A Sp	Fayetteville
-Spikes, Lillian Vera	F So	Rogers
-Spratt, Madge	F F	Fort Smith
**Stanfield, Wayne Barlow	A F	Booneville
-Starbird, Levi Clark	F So	Alma
Stark, Hardin Oliver	A F	Conway
-Stearns, Bryan	Ag-Sr	Fayetteville
Stearns, Mary	Ag-So	Fayetteville
Steinberg, Harry	A Sp	Corning
Stell, Dullye Sue	A F	Portland
**St. John, Andrew Warner	A F	Mena
-Stewart, Olive	A-Sr	Van Buren
**Stone, Samuel Ferdinand	A F	Hot Springs
-Stout, Marion Lewis	A F	Hartford
**Strange, Fred Hugh	A-So	Stamps



Name	Course	Home Address
Sturdivant, Verna Anna	Ed-Sp	Springdale
**Sullivan, John Arthur, Jr.	E-F	Hope
-Sullivant, Mary Bob	A-So	McNeil
**Swain, William Robert	A-F	Jean, Texas
Swicegood, Jessie Zella	Ed-Sp	Elkins
Swicegood, Ollie Maude	Ed-Sp	Elkins
**Tallman, Boyd Lewis	A-F	Stuttgart
Taylor, Beloit	A-J	Corning
*Teague, William Lewdy	E-Sr	Amity
**Terry, Burton Carl-Lee	E-F	Tillar
**Terry, John	A-F	Little Rock
**Terry, Joseph Flemming	E-F	Fayetteville
-Thayer, Rachel Corrilla	Ed-So	Houston
Thomas, Bryan	A-F	Booneville
**Thomas, Clarence James	A-F	Clarendon
Thomas, Zelma	Ed-F	Benton
*Thomason, Dewey Schley	Ag-F	Warren
+Thompson, Beatrice Robertson	A-So	Fayetteville
**Thompson, George E.	A-F	Viola
Thompson, Haselle	A-Sp	Fayetteville
-Thompson, Jack Ardee	E-F	Hazen
-Thompson, Mildred Katherine	Ed-So	Springdale
*Thompson, Richard Haynes	A-So	Little Rock
**Thompson, Robert Marion	A-F	Rogers
**Tomlinson, Horace	A-F	Lonoke
Toney, Jewell Anna	Ed-Sp	Elkins
†**Toomey, John Micael	A-F	Rogers
Torbett, Joe Hall	A-F	Avoca
Torreyson, Elizabeth Augusta	Ed-F	Conway
*Towery, Saul Izaac	E-F	Texarkana
**Towler, Harold Speight	A-J	Fordyce
-Trimm, Blythe	A-So	Little Rock
Trippett, Florence	A-Sp	Texarkana
Tucker, Irma	Ag-Sp	Little Rock
**Turner, Bernard	A-F	Lockesburg
Turner, Bolon Bailey	A-J	Little Rock
**Turner, Sanford Reamey	A-F	Malvern
*Turner, William Oakley	E-Sr	Lonoke
Tyson, Frances Joseph	Ed-F	Harrison
†Died December 1, 1918.		
†**Died October 11, 1918.		
**Van Arsdel, Victor Velven	A-F	Warren
*Van Frank, James Newell	E-So	Little Rock
-Vaughan, Burton Edwards	A-F	Little Rock
Vernon, Tennie	Ed-Sp	Elm Springs
Vernon, Lura	Ed-Sp	Elm Springs
Vickers, Helena Aurelia	Ed-So	Fayetteville
**Velvin, James Carroll	E-F	Lewisville
-Vinson, Clyde	A-J	Colt
**Vinson, Robert Ernest	A-F	Colt
**Vogler, Asher	A-F	Little Rock
**Volentine, Lester Eustas	A-So	Charleston
**Wagner, Dewey Lloyd	A-F	Gravette
**Wait, Robert Eastin, Jr.	E-F	Little Rock
-Wakefield, Elmer Glenn	Ag-So	Nashville
-Wales, Ernest Lafayette	E-F	Mammoth Springs
**Walker, Dean Franklin	F-F	Rogers
**Walker, James Byrnes	A-J	Fayetteville
**Wallace, Albert Lester	E-J	Fayetteville
**Wallace, J. Walter, Jr.	E-F	Newport
**Wallace, Lee A.	A-F	Leslie
-Wallace, Louise Anna	A-J	Magnolia
**Warc, Galen Leicester	Ag-F	Lawrence, Kan.

Name	Course	Home Address
**Ware, Maxmillian	E-F	Pine Bluff
**Warner, Eugene Merwin	A-F	Fort Smith
**Washington, Oran Mayo	A-F	Holly Grove
-Waters, Helen Margery	A-F	Lake Village
-Watts, Charlotte A.	Ed-I	Prairie Grove
-Watts, Edith M.	Ed-So	Prairie Grove
**Weaver, Robert Maurice	E-F	Van Buren
-Webb, Mabel	A-So	Fayetteville
-Webb, Ralph	Ag-So	Fayetteville
Webb, Verna Luanna	Ag-F	Bauxite
**Webb, William Harold	E-F	Bauxite
Wells, Bessie Merle	Ed-So	Pine Bluff
Wells, Edna Mabel	A-Sp	Fayetteville
**Wells, Marus Tully	E-F	Gravette
**West, Mannie Erving	E-F	Pine Bluff
**West, Sebastian Ray	A-F	Pine Bluff
-Whaley, Allene	Ed-So	McNeil
-Whaley, Zelma Ola	Ed Sp	McNeil
White, Alfred Popkess	A-F	Russellville
**White, Harvey Hiram	E-F	Paragould
White, Helen Louis	A Sp	Dumas
**Whitehead, Grady Ashton	E-F	Taylor
**Whitener, Jewel Roscoe	A-F	Batesville
-Whiteside, Thomas C.	A-F	Gentry
**Whitted, John Orland	A-F	Wheatley
**Wilcox, Dell Cato	E-So	Stuttgart
Wilder, Robert Aubrey	A-F	Plummerville
Wilkerson, Augustus Benton	E-F	Aurora, Mo.
-Wilkerson, Glaphyra	A-F	Aurora, Mo.
**Wiley, Clifford De Leon	A-F	Pocahontas
-Wilkinson, Virginia Middleton	Ag-F	Fayetteville
-Williams, Christina Marie	A-F	Brinkley
-Williams, Freida Elizabeth	A-F	McCrory
Williams, James Forrest	A-So	Atkins
-Williams, Long John	E-So	Booneville
**Williams, Myles Sigsbee	E-F	Foreman
-Wilson, Autrey Polson	A-So	Prairie Grove
-Wilson, Carl Vanhorn	A-J	Fayetteville
-Wilson, Carrie Mae	Ag-F	El Dorado
-Wilson, Frances Lucile	A-F	Fayetteville
**Wilson, Guy	E-So	Prescott
Wilson, Louise	Ed-Sp	Fayetteville
**Wilson, William Basil	E-F	Pine Bluff
**Winfree, Clarence Earl	A-F	McCrory
**Winfrey, Richard Bean	E-So	Fayetteville
-Winkleman, Ben Hartwell	E-So	Fayetteville
Winn, Isa Marie	Ed-Sp	West Fork
-Witt, Gibson, Jr.	A-Sr	Hot Springs
-Wolf, Ruth	A-F	Fayetteville
Womack, Hope	Ed-So	Hugo, Okla.
**Wood, John Andrew	A-So	Ashdown
-Wood, Willis Jesse	A-F	Fort Smith
Woods, Opal Denton	Ed-Sp	Pea Ridge
**Woodward, Farris Savoy	A-So	Ozark
**Wooten, William Chesley	A-F	Helena
**Worthy, Ezra Lee Roy	E-F	Portland
**Wright, Harry McDonald	E-F	Little Rock
**Yoes, Oran Campbell	E-F	Van Buren
**Yoffie, Nathan	A-F	Marianna
-York, Harvey Alexander	Ag-Sr	McCaskell
-Youmans, Catherine Rebecca	A-F	Fort Smith
**Young, Ellwood Shores	E-F	Little Rock
**Young, John Henderson	E-So	Fayetteville

# SUMMER SESSION

1918

Aaron, Rosa	Fayetteville	Carter, Mattie	Fayetteville
Albright, Chester	Fayetteville	Carter, Versa	Fayetteville
Alexander, Carrie	Fayetteville	Cate, Pearl	Fayetteville
Alexander, Genevra	Malvern	Caudle, Jewell	Fayetteville
Alexander, Mary	Fayetteville	Caughman, Tonia	Winslow
Anderson, John C.	Springdale	Center, Elsie	Winslow
Askew, Margaret	Fayetteville	Clark, Mrs. G. W.	Cypert
Aydelotte, Laura	Foreman	Clark, Pearl	Goshen
Ayers, Mrs. Linnie	Fayetteville	Cowley, Maude	Hazel Valley
Bacon, Cornelia	Texarkana	Cooper, Annie	Magnolia
Bacon, Ellen	Texarkana	Cooper, Ethel	Garnett, Kan.
Baker, Ida Ina	Prairie Grove	Cox, Elsie	Farmington
Barnes, Dewey L.	Fayetteville	Cox, Lelah	Johnson
Barnett, U. C.	Dermott	Craig, Floy	Batesville
Barringer, Georgia	Fayetteville	Crاندall, Bonnie	Harrison
Barron, Lena	Fayetteville	Crawford, Inez	Joaquin, Tex.
Barry, Elizabeth	Dardanelle	Crump, Helen	Fayetteville
Barton, L. E.	Fayetteville	Custer, Daniel C.	Center Point
Baskin, Clara	Wheeler	Davis, Jennie	Fayetteville
Basye, Pearl	Stuttgart	Davis, W. M.	Fayetteville
Battershell, Nora	Marshall	Delozier, Cora	Elm Springs
Baumgartner, John	Brinkley	Delozier, Ollie	Elm Springs
Beeble, Alice	Stuttgart	Denton, Frances	Fort Smith
Bell, Mary	Russellville	DeRoulhac, Irene	Fayetteville
Beloate, Viola	Corning	Dickey, Edna	Monticello
Benbrook, Jewell	Farmington	Dodson, Fannie	Cincinnati
Bingham, Emma	Springdale	Dodson, Mrs. J. W.	Fort Smith
Bird, Beverly Ann	Waldron	Dollarhide, Bendette	Foreman
Bird, Marie	Waldron	Dotson, Katie	Fayetteville
Blake, Clara	Moscow, Kan.	Duke, Walter	Waldron
Boggs, Lucy	Fayetteville	Durham, Osborn	Clarksville
Braswell, Margaret	Fort Smith	Edmston, Laura	Cane Hill
Bratton, Una Rose	Marshall	Ellis, Catherine	Fayetteville
Brewster, Lillian	Fayetteville	Eoff, Leah	Fayetteville
Briscoe, Eileen	Harrison	Eskew, Florie	Fort Smith
Browne, Ada L.	Harris	Evatt, Estella	Waldron
Brown, Freda M.	Dewey, Okla.	Falconer, F. A.	Charleston
Brown, Gladys	Fayetteville	Ferguson, Mertie	Strickler
Brown, Lenore	Walnut Grove	Floyd, Lenna	Bentonville
Brown, Mazillah	Walnut Grove	Floyd, Mary	Bentonville
Broyles, Lela	Farmington	Formewalt, Vera	Stuttgart
Bruner, Lucille	Fayetteville	Fulbright, William	Fayetteville
Brunskog, Annie	Bentonville	Garrison, Albert	St. Joe
Brunskog, Eva	Bentonville	Garrison, Dan	St. Joe
Buchanan, Hopie	Foreman	Gatewood, Anita	Malvern
Burke, Zealia	Lexington	Gideon, Orpha	Scranton
Campbell, Mrs. Gray	Fayetteville	Giles, F. D.	Wheeler
Campbell, Kate	Fayetteville	Giles, Marie	Prairie Grove
Canady, Ruth	Lincoln	Glidewell, Pearl	Lincoln
Cardwell, Lillian	Johnson	Gollaher, Pearl	Fayetteville
Carpenter, Edna	Valley Springs	Grabiel, Ruth	Fayetteville
Carson, Allie	Benton	Greaves, Bernice	Fayetteville
Carter, Christine	Fayetteville	Greaves, Mrs. C. D.	Fayetteville
		Greer, Gladys	Horatio

Gregory, W. R.	Kansas City, Mo.	Kuhnert, Ruth	Springdale
Griffin, Aileen	Marvell	Kyle, Bonnie	Magazine
Halbrook, T. A.	Cameron, Okla.	Lampton, Margarette	Booneville
Hall, Mabel	Walderon	Layne, Cleo Marie	Plattsburg, Mo.
Hanks, Bessie	Johnson	Lea, Wilhemina	Little Rock
Hanks, Vera	Johnson	Leibrock, Christine	Stuttgart
Harmon, Mrs. Nettie	Newport	Linton, Pauline	Fayetteville
Harrington, Janette	Fayetteville	Littlejohn, Jeanette	Berryville
Harris, Esther	Durham	Llewellyn, Louise	Lake Village
Harrison, W. R.	Helena	Logan, Robert	Fayetteville
Hart, Gertrude	Van Buren	Love, George R.	Rogers
Hart, Maud	Sunset	Lucas, Camille	Warren
Hart, Robert P.	Arkadelphia	Lumkin, Fay	McGehee
Harvey, Robin	Booneville	Luther, Lillian	West Fork
Hastings, D. C.	Crossett	Mahan, Raymond	Bearden
Hays, Elizabeth	Van Buren	Markham, Charlotte	Pryor, Okla.
Hebert, Gaston A.	Hot Springs	Martin, Dorothea	Warren
Heerwagen, Leo	Fayetteville	Massengale, George	Fayetteville
Heerwagen, Louie	Fayetteville	Massengale, 'Lura	Fayetteville
Heerwagen, Ruth	Fayetteville	Mather, Juliette	Fayetteville
Hendricks, Belle	Fayetteville	Mathews, Jim P.	Horatio
Hendricks, Grace	Waldon	Mathews, Perry	Calico Rock
Hendricks, Sterling	Fayetteville	McBride, Berta	Fayetteville
Hester, Pansy	Greenwood	McBride, Lillie Mae	Fort Smith
Hickey, Ada	Fayetteville	McCaleb, Allie Jean	Batesville
Hill, Ethel	Berryville	McClain, Effie	Garbett, Kan.
Hill, Fannie May	Nashville	McColein, Elizabeth	Texarkana
Hollingshead, Maude	Stuttgart	McCoy, Susan	Carthage
Hollway, Thos. T.	Dallas	McCullough, Maibelle	Fayetteville
Holmes, Dan K.	Valley Springs	McDaniel, C. H.	Magnolia
Howard, Ruth	Fayetteville	McDonald, Louise	Fort Smith
Hubbard, Marguerite	Fort Smith	McGee, Mary	Ridge
Hubbard, Minnie	Fort Smith	McLees, Willie	Little Rock
Hudson, Clara	Gillett	McMurtrey, Olive	Rison
Hudson, Ina	Gillett	Mickel, Melba	Van Buren
Huffmaster, Mary	Springdale	Miller, Alma	Harris
Huffmaster, Reba	Springdale	Miller, Ola	Stuttgart
Hull, Lula	Eureka Springs	Milligan, Hazel	Fayetteville
Hunter, Lois	Warren	Mitchell, Nancy	Pattersonville
Hughes, Mrs. W. H.	Huntsville	Mitchell, Winnie	Carrollton
Ingraham, Inez	Fort Smith	Moore, Leone	Fayetteville
Irby, Annie	Wesson	Moore, Nannie May	Fayetteville
Irby, Pet	Wesson	Morehead, Louise	Hot Springs
Ivy, T. R.	Fayetteville	Morris, Etna	Fort Smith
Ivy, Mrs. T. R.	Fayetteville	Nelson, E. H.	Spiro, Okla.
Johnson, Catherine	Little Rock	Nelson, Stella	Habberton
Johnson, Gertrude	Spring Valley	Newman, Grace	Habberton
Johnston, Minnie	Greenwood	Nott, Leora	Winslow
Johnson, Norma	Spring Valley	Ogran, C. J.	Stuttgart
Jones, Blanche	Greenwood	O'Kelley, J. F.	Fayetteville
Jones, Hattie	Habberton	Oliver, Bess	Fayetteville
Jones, J. F.	Cantry	Owens, Addie	Yellville
Jones, Ola	Haberton	Parks, Louie	Bentonville
Jones, W. R.	Wister, Okla.	Paslay, Dole	Summers
Kantz, Nelle	Fayetteville	Pearce, Joe	Magnolia
Kantz, Willie	Fayetteville	Pickens, Sidney	Batesville
Karnes, Jewell	West Fork	Pinkerton, Earle	Russellville
Karnes, Myrtle	West Fork	Poe, Pearl	Newport
Kern, Olive	Springdale	Polk, Linda	Fayetteville
Kerr, Catherine	Fayetteville	Porterfield, Neva	Fayetteville
King, Anna	Fayetteville	Powell, Lila	Wyman
King, Lela	Ola	Prather, Doris	Fort Smith
Kone, Evelyn	Fayetteville	Pratt, Evangeline	Fayetteville
Kuhnert, Clara May	Springdale	Price, Mabel	Beebe

Pyle, Helen Louise	Fort Smith	Sullivan, Farrell	Fayetteville
Ragsdale, Eugene	Fayetteville	Sullivan, Mattie	Cane Hill
Rambo, William	Alston	Sweet, Lucile	Natchitoches, La.
Randall, G. O.	Rogers	Summers, Beatrice	Fayetteville
Reed, Miss Aaron	Greenland	Taafe, Maime	Foreman
Reed, Arizona	Mena	Taggart, Helen	Fort Smith
Reed, Lina	Fayetteville	Taylor, Beloit	Corning
Reinsch, Olga	Stuttgart	Terhune, Mrs. Alice	Cave Springs
Reed, Lila Mae	Prairie Grove	Taylor, Rose	Magazine
Rhodes, Kathleen	Green Forest	Terpening, Lela	Prairie Grove
Richardson, Mrs. O. T.	Augusta	Thayer, Corrilla	Houston
Richardson, O. T.	Augusta	Tidball, Susan	Fayetteville
Robbins, Ruth	Mena	Trent, Ruth	Fayetteville
Robinson, Chloera	Centralia	Trotter, Conner	Monticello
Robinson, Nora	Mena	Tucker, Izette	Prairie Grove
Rodgers, Eunice	Fayetteville	Tyson, Lucile	Harrison
Rodgers, Lois	Fayetteville	Vincenheller, Miriam	Fayetteville
Rosencrantz, Ruth	Fayetteville	Ware, Reville	Stuttgart
Ross, Winifred	Springdale	Watts, Edith	Prairie Grove
Ross, Winona	Springdale	Watson, Lillian	Mena
Russell, F. H.	Imboden	Webb, Joseph W.	Prairie Grove
Samuel, Sarah	Fayetteville	Webb, Ralph	Fayetteville
Sanders, Mayme	Fayetteville	Webb, Ray	Fayetteville
Sanders, Nelle	Springdale	Wells, Edna	Fayetteville
Sanderson, Sibyl	Texarkana	West, Mary Ella	Prairie Grove
Scheeler, Helena E.	Stuttgart	Westbrook, Marie	Beebe
Scheeler, Martha	Stuttgart	Whitcomb, Brewster	Groesbeck
Seamster, Dorothy	Fayetteville	White, Helen	Dumas
Sheeks, Edgar	Corning	White, Tuell	Stilwell, Okla.
Sheeks, George Alice	Corning	Whitford, W. E.	Fayetteville
Shull, Vera	Horatio	Wilkerson, Mrs. C.	Conway
Simpson, Lucille	Fayetteville	Wilkerson, C. K.	Conway
Smith, Byron T.	Springdale	Wilkinson, Aubrey	Palestine
Smith, Douglas O.	Waldron	Williams, Edna	Fayetteville
Smith, Isabella	Fayetteville	Williams, Hattie	Fayetteville
Smith, Kate	Batesville	Williams, J. F.	Atkins
Smith, Robert L.	Searcy	Williams, Kate	Jacksonport
Smith, Velma	Paris	Willis, C. T.	Wynne
Sone, Allah	Fayetteville	Winn, Olive	West Fork
Sowers, Bertie	Monticello	Withrow, Olive	Bentonville
Spikes, Lillian	Rogers	Woody, Mrs. Fannie	Fayetteville
Spyres, Pearl Fay	Fayetteville	Word, W. E.	Searcy
Stafford, Myrtle	Danville	Wozencraft, Ida	Fayetteville
Steinberg, Harry	Corning	Wright, Beulah	Springdale
Stewart, Allie	Greenwood	Wright, Ola	Fayetteville
Stipes, Gladys	Springdale	Wyche, Miss Pat	Lonoke
Stuckey, Willie	Johnson	Young, Mrs. Edgar	Batesville

# TRAINING HIGH SCHOOL

1918-1919

Dan Allen	Mary Gillespie	Dane Pearson
Olive Ashcroft	Carlos Guisinger	Horace Pond
Margaret Askew	Paul Guysinger	Jewell Pond
Gladys Barron	Mary K. Hall	Garland Poole
Mattie Bell	James Hamilton	Bernice Pugh
Bunn Bell	Hugh Hamlett	Wilkes Pugh
Mildred Bigham	Lela Hansard	Ruth Pycatte
Audrey Boyd	Arthur Harding	Edna Rankin
Mary Boyd	William Harding	Wilber Rankin
Herbert Buchanan	Mayme Harrison	Irene Richardson
John A. Bunch	Jessie Hatfield	Maurice Renner
Henry Burke	Mary Hawn	Weldon Renner
Marshall Campbell	Louis Heerwagen	Mary Lou Risley
Caudie Carter	Dorothy Hightower	Thomas Rogers
Fred Carter	Julian Hogan	Marguerit Rudolph
Edwin Cockburn	Carrol Hooper	Winfred Rudolph
Otto Combs	Moody Irby	Juanise Scoggin
John C. Conner	Norman Jenkins	Linn Sharp
Nancy Ann Cookinham	Ben Johnson	Brooks Sheeks
Elsie Cox	Dorothy Jones	Harry Shibley
Mozelle Davis	Sam Kerr	Edgar Shipley
Anna Belle Davis	Ray Kuykendall	Elizabeth Shipley
Jessie Davis	Roy Kuykendall	Hazel Shipley
Olin Dever	Jimmie Ladd	Mack Smith
Fielding Dickey	Robert Lemmon	Mary E. Smith
Mae Dixon	Gus Lewis	Rubie Smith
Robert Dutton	Fredrick Liebolt	Marie Sone
Margaret Earl	Peggie Lighton	Malcolm Stanford
Edward Ellis	Ruth Lucas	Edward Stone
Charles Eggleston	Ernest Lyon	Glenn Teeter
Harold Feathers	Stewart Maddox	Arch Thompson
Teddie Fitzhugh	Grace Mahaffey	Delpha Tuck
William Fulbright	Illa McAllister	Wythe Walker
Helen Futrall	Thelma McCatherine	George Wallace
Albert Garrison	Annie McGill	Rachel Ward
Dan Garrison	Dorothy McRoy	Martha Whitmore
Oliver Galbraith	Adabelle Miller	Hal Winfrey
Melba Gill	Jerome Moore	George Wolf
Charles Grier	Earl O'Conner	Parish Webster
	George Payne	

## INTENSIVE TRAINING IN AUTOMOBILE MECHANICS

Alcorn, Hal Stuart	Little Rock
Alcorn, Robert Elmore	Little Rock
Arbough, Jake	Denning
Bird, Walter Erwin	Springdale
Bouton, Arthur Franklin	Springdale
Davis, Sam Fain	Altus
Dowell, Samuel	Fayetteville
Eastin, Jack Frank	Little Rock
Fitzgerald, James F.	Walnut Ridge
Ganner, Harold Lee	Russellville
Gardner, Joseph H.	Rosedale, Miss.
Hatfield, Roy	Fayetteville
Henderson, Fitzhugh Lee	Augusta
Hogan, Elmer E.	Little Rock
Johnson, Buford	Lincoln
Knight, Clarence	Augusta
Marks, Charles Louis	Springdale
Musteen, Hubert	Fayetteville
Pool, Garlin	Farmington
Stephens, Maris Emerson	Fayetteville
Swagerty, Loddie	Fayetteville
Swagerty, Lloyd	Richards, Colo.
Sykes, Ralph	Clarksville
White, Curney	Durham
Whitted, Herman Orando	Wheatley

## AGRICULTURAL SHORT COURSE

Austin, Robert Lee	Ozark
Bugg, Benjamin Alexander	Blytheville
Halley, John S.	Marianna
Henderson, O. S.	Hot Springs
Jones, Lee	Mountain Home
Reding, William Caleb	Greenwood
Roody, John Sid	Blaine
Snelling, Paul H.	Ozark
Stewart, Alfred James	Greenwood
Trussell, Walter Andrew	Haskell



# SUMMARY

<i>College of Arts and Sciences:</i>		559
Graduates	4	
Seniors	25	
Juniors	41	
Sophomores	84	
Freshmen	354	
Specials	47	
Music	4	
<i>College of Education:</i>		133
Graduates	1	
Seniors	5	
Juniors	9	
Sophomores	48	
Freshmen	33	
Specials	37	
<i>College of Engineering:</i>		269
Seniors	12	
Juniors	17	
Sophomores	39	
Freshmen	193	
Specials	5	
Trade Courses	3	
<i>College of Agriculture:</i>		78
Seniors	12	
Juniors	7	
Sophomores	8	
Freshmen	43	
Specials	8	
		<hr/>
Total		1039
Duplications		16
		<hr/>
Fall, Winter, and Spring Terms		1023
Summer Session		334
Training High School		117
Radio Course		291
Intensive Training in Automobile Mechanics		25
Intensive Training in Agricultural Short Course		10
Carpentry Course		47
Concrete Course		22
Automobile Mechanics		402
Agricultural Short Course		60
*Smith-Hughes Vocational Agriculture		13
*Smith-Hughes Trades and Industries		3
		<hr/>
Total		2347
Duplications		70
		<hr/>
Students registered for General Extension courses		2277
		<hr/>
		1544
		<hr/>
		3821

\*Non-resident students.

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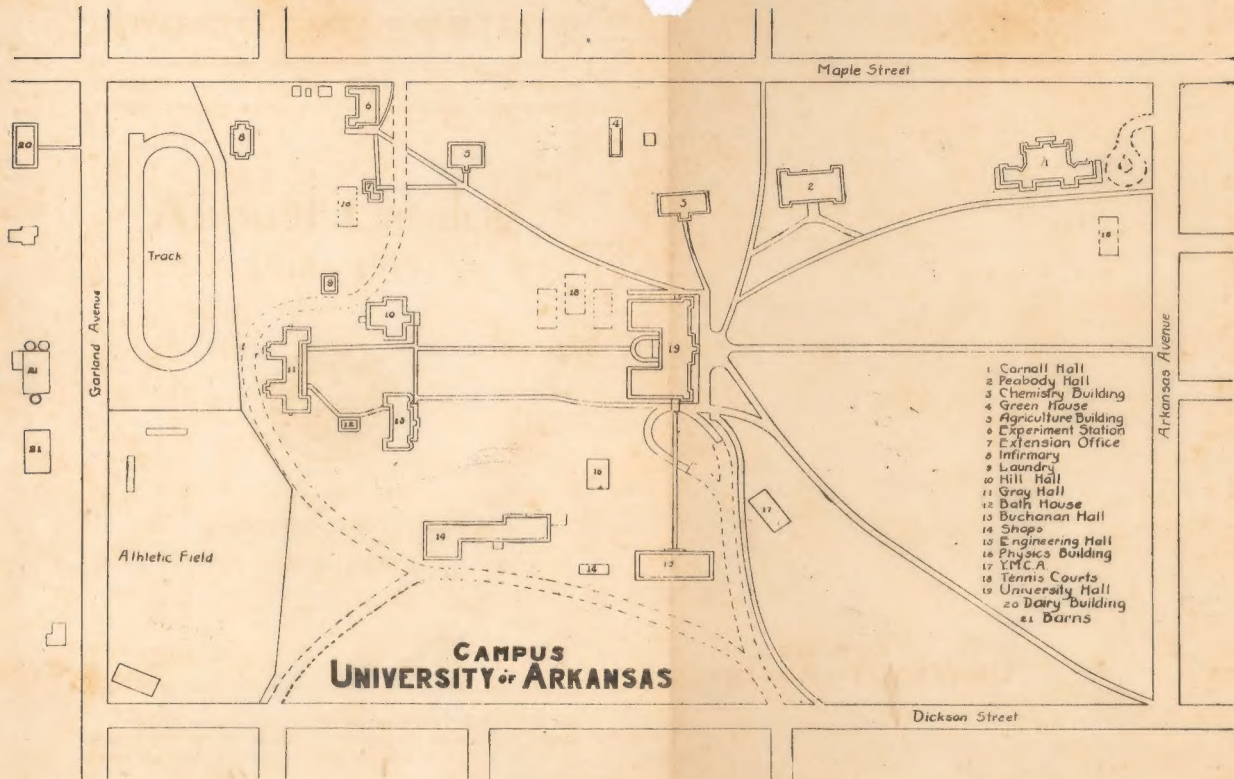
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